

676.3  
664  
715

FEB 10 1933

Medical Lib.

FEBRUARY, 1933

# Clinical Medicine and Surgery

VOLUME 40

NUMBER 2



## Leading Articles



### Recent Progress in the Treatment of Cancer (Part I)

By Charles F. Geschickter, M.D., Baltimore, Md.

### Final Report on the Therapeutic Effect of Oleic Acid and Bile Salts in Gall-Bladder Disease

By Reuben Finkelstein, M.D., F.A.C.P., and  
Emanuel W. Lipschutz, M.D., Brooklyn, N. Y.

### Notes from the International Postgraduate Medical Assembly

Reported by George B. Lake, M.D., Chicago

### Teaching Technic

By T. E. Darby, M.D., Washington, D. C.

### A Roentgenologic Consideration of the Arthritides

By Louis J. Gelber, M.D., Newark, N. J., and  
Samuel Goldberg, M.D., Belleville, N. J.

### Child Care, as Promoted by Pediatrician and Stomatologist

By Irene G. Woodcock, D.D.S., New York City

### The General Practitioner as a Specialist

By Samuel J. Rose, M.D., Lexington, Ky.

### Editorials

Dr. Jaime Ferrán

Pathosis

Technocracy

Obedying Orders

Political Pensions for

Peace Veterans

Exercise

COMPLETE TABLE OF CONTENTS ON ADVERTISING PAGE 4

In Seborrheic Dermatitis  
of the face and ears—

R<sub>x</sub>

Euresol . . . gr. xv

Petrolat . . . oz. i

Apply twice daily

# Euresol

(acetylresorcinol)

in Diseases of the  
Scalp and Skin

Literature and Samples  
from the Distributors:

BILHUBER-KNOLL, CORP., 154 Ogden Ave., Jersey City, N. J.

# CACTINAPILLETTS

A non-toxic, non-irritating cardiac tonic  
made from the fresh green drug Cactus  
Grandiflorus.

Useful in ARRHYTHMIAS, TACHYCARDIA, TOBACCO HEART and  
the FALLING HEART of the Aged, etc. . . .

Write for literature  
and sample.

OD PEACOCK SULTAN COMPANY  
PHARMACEUTICAL CHEMISTS  
4500 Parkview  
St. Louis, Mo.



# BACK IN THE "NINETIES"



physicians often used a purgative as a  
chologogue—but—it failed to stimulate the  
flow of bile and caused the patient to suffer  
unnecessarily. Shortly after that period

## TAUROCOL (Torocol) Tablets

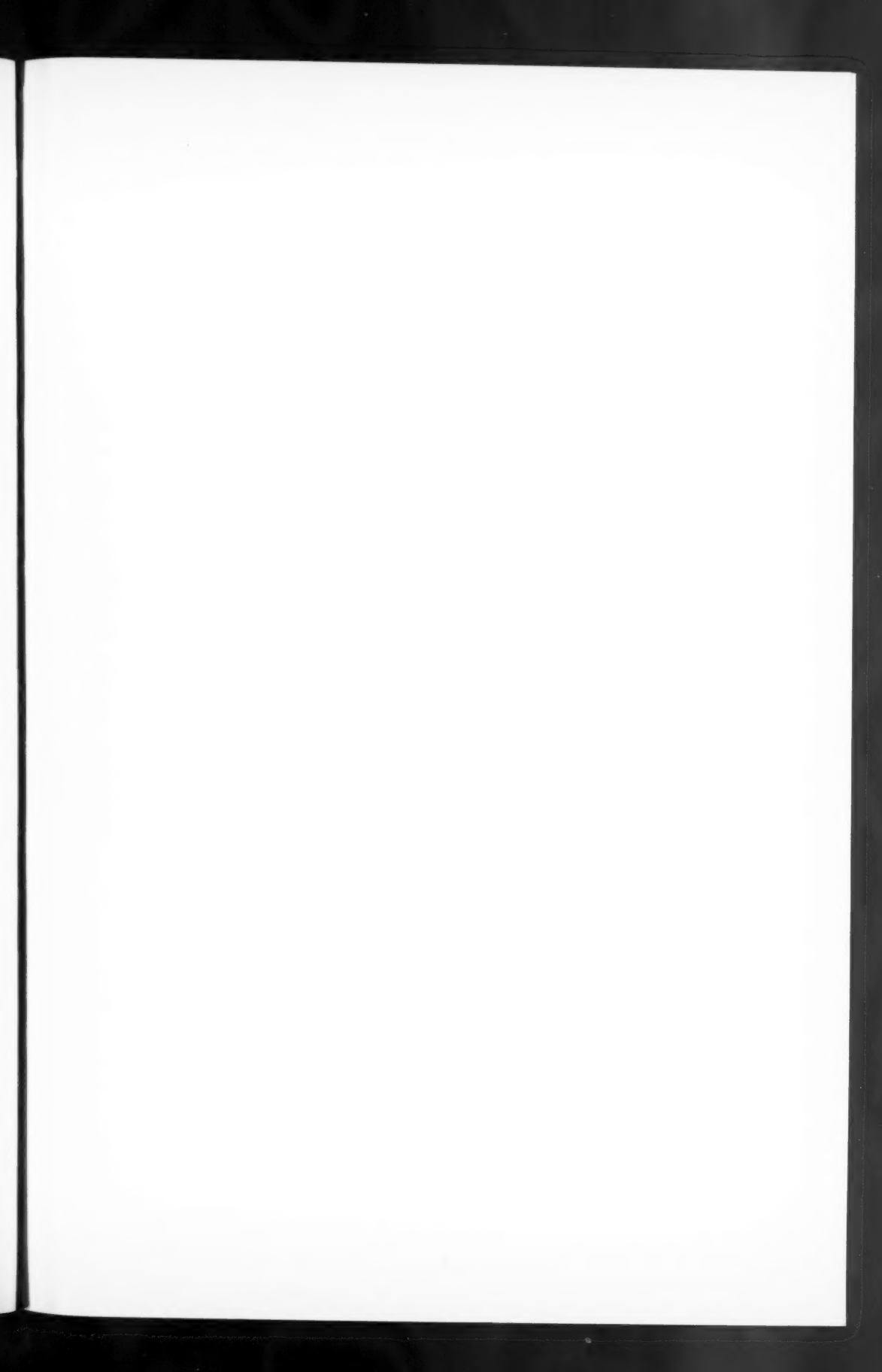
were developed to give the  
modern physician a depend-  
able chologogue. Con-  
tains cascara sagrada,  
phenolphthalein, and

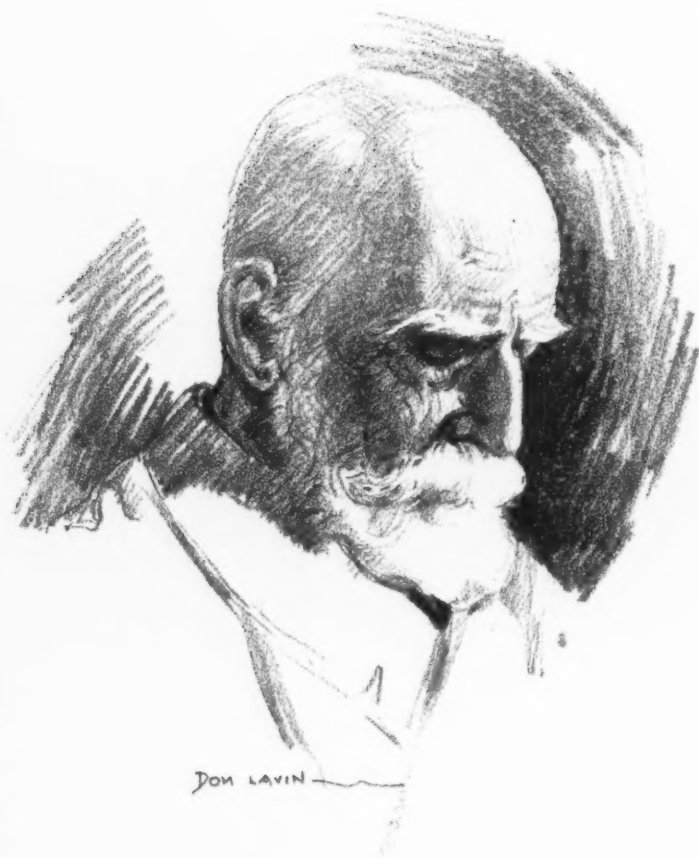
aromatics. Laxative, cathartic, stimulates  
the flow of bile without irritation to the  
liver or gastro-intestinal tract.

*Samples and full information on request*



THE PAUL PLESSNER COMPANY  
Detroit Michigan





JAIME FERRÁN Y CLUA, M.D.





# CLINICAL · MEDICINE AND · SURGERY

VOL. 40

FEBRUARY, 1933

No. 2

## Dr. Jaime Ferrán

**I**T IS surprising how frequently even rather superficial researches in the history of medicine substantiate the validity of the old saying, "There is nothing new under the sun."

Most of the medical world was rather startled when, in 1930, Calmette announced: "It is necessary to admit that the bacillus, discovered in 1882 by Robert Koch, represents only one of the stages of evolution of a form of resistance to the virus of tuberculosis."

As long ago as 1897, however, another celebrated bacteriologist had stated (and Calmette and others had ridiculed him!): "We must abandon the false conception which we have held, as to the etiologic unity of tuberculosis, which we have attributed exclusively to Koch's bacillus. This bacillus is the terminal stage of the natural evolution of a non-acid-fast bacterium, whose development takes place in the midst of a complex medium, such as a tuberculous animal."

This far-sighted statement was largely overlooked by Americans, because its author was not a German, but a Spaniard, Dr. Jaime Ferrán y Clua, of Barcelona, whose very name is unknown to many, although

he was one of the illustrious pioneers of immunology and preventive medicine—in fact, the founder of immunization by means of bacterial vaccines.

Ferrán was born, February 2, 1852, in Corbera, Spain, and studied medicine and was graduated in Barcelona, at a time when Pasteur's germ theory of disease (announced in 1864) was still a subject of controversy and was not generally taught in the medical schools. It fascinated the young Spaniard, however, and he took up the study by himself, in his own home, to such purpose that, when an epidemic of cholera broke out in Valencia, in 1884, he prepared, and used with great success, a vaccine made from attenuated, living bacteria.

In 1886, Dr. Ferrán was made director of the Municipal Laboratory of Barcelona; but he never held any other official positions and never taught in the Universities. He was, preeminently, the solitary research student, working out his revolutionary ideas alone and little moved by the scoffing of the ignorant and prejudiced rabble.

In 1894 he prepared an effective vaccine against tetanus, and later others against

typhoid, typhus, rabies and plague. The use of the last-named prophylactic resulted in the saving of hundreds of lives during the plague epidemic in Oporto, in 1899.

Ferrán had the idea of serum therapy before it was promulgated by von Behring and Kitasato, having observed that the blood of cured cholera patients protected well people against the disease. He also prepared a curative serum for use in diphtheria.

As if this were not enough to assure his fame, he added to his accomplishments, in middle life, the discovery of the pleomorphism of the tubercle bacillus, which is thus described, in picturesque Spanish, by one of his countrymen, Count de Gimeno, who was proud to call him "Master":

"He discovered that the bacillus of Koch, long recognized as the sole and indisputable factor in tuberculosis, is not the principal, much less the only factor in the pathologic drama, but the final descendant of a maleficent microbial dynasty, whose mysterious geneologic tree Ferrán exposed to the light, after labors which were as long as they were tedious, and as difficult as they were admirable."

The work of this great and wise pioneer of bacteriology and immunology came to a close on November 22, 1929, he being seventy-seven years old.

Whether or not the world ever comes to recognize the value and importance of his life and work, his countrymen do so. On December 12, 1930, all that was mortal of him was transferred to its last resting place, in a dignified and beautiful tomb in the city where his work was done, with ceremonies befitting the sepulture of a national hero.

It is well that we, who have benefited so largely by his basic researches, should also do him honor in our hearts.

---

You will never improve your optimism if you chastise yourself by comparing your weak points with the strong points of others.—COL. WILLIAM C. HUNTER.

---

There is only one thing worth praying for—that we may be in line with evolution.—ELBERT HUBBARD.

## PATHOSIS

**P**ATHOLOGY is defined by Dorland as, "That branch of Medicine which treats of the essential nature of disease, especially of the structural and functional changes caused by disease." It is, therefore, an abstract noun, denoting a branch of scientific study or knowledge, and cannot, with propriety, be used as a substantive noun, to describe some visible or tangible object. It is as ridiculous to say, "The lungs showed pathology," as it would be to declare that the kidneys exhibited urology or the uterus gynecology.

There is, however, a need for a noun which will express the idea in the minds of the writers who so frequently misuse the word, pathology. It is, of course, possible and proper to say that pathologic changes were found in the skin or bronchi or rectum, but in most medical articles, simplicity, brevity and directness are desirable qualities and the use of two words where one will express the idea adequately is worthy of elimination, if possible.

The suffix, *osis*, is defined by Dorland as, "A termination denoting a disease or morbid process; sometimes a process not morbid."

Because the root of the word, pathology (*path*), is so firmly fixed in the minds of most medical writers and readers as expressing a morbid process; and because the suffix, *osis*, does not always or necessarily mean a morbid process, it is suggested that the two be combined in the word, *pathosis*, when one wishes to express the existence of a concrete pathologic process in some specific organ, without going into particulars in regard to the structural or functional changes present. One might properly say, "The roentgenogram showed *pathosis* in the bony structures," or "The urinalysis revealed *pathosis* in the upper urinary tract."

Since this word is etymologically sound, has been personally approved by Dr. Dorland and there seems to be a real need

(though not actual necessity, because the word, disease, expresses the idea) for it, we suggest its adoption as a recognized part of medical nomenclature and will, for the time being at least, employ it in our columns.

---

What we do depends on what we are; but we are, to a certain extent, what we do. We are creating ourselves continually.—HENRI BERGSON.

---

### TECHNOCRACY

AN idea, which many people believe to be new, has recently been claiming a great deal of general attention, possibly because a new word, *technocracy*, has been coined to express it. The basic idea is not, of course, new, though it is now wrapped up with a mass of technical details and jargon, which its promulgators assure us are more difficult to understand than is Einstein's theory of relativity.

From a practical standpoint, however, and divested of technicalities, the proposition advanced is that the new machines, recently introduced or now in process of perfection, are capable of producing sufficient things, of all kinds, to enable the entire population of this country to live, on a scale hitherto possible only to the moderately wealthy, through the efforts of about one-fourth of the population of working age. This has been more or less clear, to thinking people, for a decade or more, but most of them have refused to face the issue, because it involves (or seems to involve) a revolutionary change in our social structure—and changes are distressing to most of us.

The reorganization suggested by the technocrats is nothing less startling than the abandonment of money as a standard of values. This is *not* bolshevism, which purports to aim at the abolition of the institution of private property, but it does imply a radical reconstruction of our present sociologic conceptions, which so far transcends anything now recognized under the name of socialism as to be something quite other.

A few hints as to how basic this change would be may help us toward clear thinking along these lines.

Corrupt and selfish politics, resulting in oppressive taxation, is one of the heaviest burdens we are now carrying. Were there no money, this load would be removed, for the "public servant," having nothing which he could accumulate illegally or unethically, would have no incentive for venality and would become what his now purely euphemistic title implies. "Taxes" would be paid, not in cash, which many now lack, but in labor, which everyone can give, according to his ability.

The international bankers have been accused (with a rather strong showing of reason) of precipitating and maintaining the present "depression" for their selfish ends. In any case, a large proportion of the people has had direct and personal experience of the disaster resulting from unsound domestic banking. The entire banking structure depends upon money for its existence.

Approximately ninety percent or more of the crime, which is agitating every community and state in the nation, is committed with the purpose of gaining possession of money (or of goods which can be exchanged for money) in an illegal or antisocial manner. Were there no money, our "criminal classes" would be reduced to a practically negligible handful, and the machinery now required for dealing with them, which constitutes a heavy drain on the public purse, could be dispensed with.

Nor would the removal of money from our scheme of things send us all into a quagmire of sloth and indifference. There are other incentives to effort besides dollars. There is an inner drive in every normal human being, prompting him to put forth his best efforts for the sake of the very game of living itself. We have all seen college athletes accomplish astonishing feats, for no other reward than the applause of their fellows; and many a man, on the field of battle, has done deeds to which

no offer of financial payment could have driven him, for the sake of wearing upon his breast a bit of bronze, suspended from a colored ribbon—or, perhaps, just because he was a *man*, with the “Divine Afflatus” in him.

Two far-seeing men laid the foundation for the whole structure of “technocracy,” in its everyday implications, before that word was born, and suggested answers to the questions which the situation so urgently propounds.

In “Looking Backward,” published in 1887, Edward Bellamy painted a fascinating picture of an active, joyous and highly productive people, living without money or cash values, without poverty and practically without crime; and last year (before “technocracy” erupted), Glenn Frank made available a sound and penetrating diagnosis and prognosis of our present social maladies, in his stimulating book, “Thunder and Dawn.”

Let those who are sincerely eager to know what practical import lies behind the mass of material (much of it foolish, immaterial or prejudiced) which is now being printed about the set of conditions, long in the making but newly christened technocracy, read these two books seriously and thoughtfully. This is a matter which transcends the limits of a profession, a religion, a political party and perhaps even a nation, and should awaken our thoughts as citizens of the United States or even, it may well be, of the World.

---

The depression is the funeral of the old social order of selfishness and tyranny and, like other funerals, it will have to end sometime.—BISHOP GEO. S. ARUNDALE.

---

### OBEYING ORDERS

WHEN a patient comes to a physician, it is expected that he is ready to obey the orders of his medical adviser, who is presumed to know more about what is best for him than the sick man does. In fact, so important is this matter, that if a

patient refuses or neglects to do exactly what he is told to do, his physician is completely justified in refusing to treat the case.

Orders of another kind are also given by doctors, and it is just as important that these be carried out, to the letter, as it is that patients should follow directions implicitly. Whenever a prescription is written, it is an order to the pharmacist to dispense exactly what is called for, and nothing else.

This seems to be the era of specialism, and it is generally recognized that the man or the manufacturer who is devoting particular thought and effort to rendering a particular type of service or services, or to the marketing of certain products, will be able to do these particular things better than they can be done by others who are not specializing in these lines or are devoting their attention to others.

There is as much difference in the manufactured drugs furnished by various pharmaceutical houses under the same names as there is in the diagnostic skill and therapeutic acumen of the physicians who prescribe or dispense them—and that is plenty! Some firms devote their entire or chief attention to perfecting one, two or half a dozen products, and it is reasonable to suppose that they will do a better job on those than will a concern which is marketing a “full line.”

Some manufacturers spend thousands of dollars every year in research, not merely to discover new remedies, but also to make sure that the old ones they sell shall be of the highest purity and potency and that the doses marked on the package are absolutely accurate: Others are far more interested in price than in quality—and research costs money.

When a patient needs surgical treatment, the attending physician (if he is honest and sincere, as most of them are, thank God!) does not merely call “a surgeon.” He considers the members of that specialty who are available and selects

the one who, in his opinion, is best qualified to do the particular work needed; and he gives that selection serious thought.

One fears that, sometimes, far less consideration is given to the matter of selection when a prescription is written. "Ten drops of tincture of digitalis" or "five vials of liver extract" may, in clinical effects, mean one thing, if a certain brand of these drugs is dispensed, and something quite different if the patient is furnished with a product made by some other manufacturer.

Patients demand results and desire and are willing to pay for the type of services and drugs that will produce them. It, therefore, behooves all physicians to find out which firms can be relied upon to furnish medicaments that can be absolutely depended upon to be pure, fresh, potent and accurately labeled, as to quality and quantity, and, when prescribing, to specify the brand of the drugs to be used, as well as the names and quantities.

Most pharmacists, when such specifications are made, will obey orders exactly; but, since they are human beings with a living to make, it is not surprising if, when no definite orders along this line are given, they sometimes dispense a product bearing the same name (but with no reputation behind it) on which their profit is greater. There are, unfortunately, still a few druggists (they do not deserve the honorable name of pharmacists) who willfully practice "substitution." It is assumed that no intelligent and alert physician would send his patients to such as these to have his prescriptions filled.

Here is the nub of the argument. Every doctor should know what pharmaceutical houses make the drugs he uses and put into them the honesty, sincerity, time and effort which will render it certain that they will produce the expected results. He should then specify the brands of the drugs to be used in his prescriptions and keep watch to see that the pharmacist who dispenses them is never, by the pressure of

financial circumstances, tempted to fatten his pocket-book by using products of an inferior or unreliable quality and, because of that, a lower price.

---

If it is a crime to receive stolen goods, what about those who buy an imitation?

---



---

If you wouldn't help a thief, why buy an article from one who stole the idea from the originator?

---

### POLITICAL PENSIONS FOR PEACE VETERANS

THE chief reason why we are overburdened with direct and indirect taxes of one kind and another, and why our whole financial structure is in danger, by reason of an unbalanced national budget, is because a substantial working majority of our so-called representatives in the Congress (House and Senate) are far more deeply interested in spending the people's money in retaining their official positions than they are in the welfare of the nation.

A conspicuous example of pork-barrel politics, in buying the votes of a large and supposedly (politically) influential privileged class, is found in the legislation connected with the Veterans' Bureau. This is not a question of party politics, as venal politicians of both great parties are equally active and determined to retain their unsavory advantage. Moreover, it is of vital interest to all physicians, as every underserving "veteran" cared for at Government expense means money out of the pocket of the doctor and the hospital that would care for him under normal and proper conditions.

No reasonable person would wish to deny to any man actually disabled in defending our Nation, nor to the dependents of those who died for what seemed to be the public welfare, every assistance which the Government can give them. It is the purely political pensioners of peace who are responsible for nearly half of the billion-dollar deficit which now stares us in the face.

Here are a few figures: The entirely

political Act of June 5, 1920 (passed 21 years after the conflict ended), gave pensions to all veterans of the Spanish-American War, irrespective of war service or injuries. As a result, the number of such pensioners increased from 26,754, in 1920, to 235,463 in 1932 (33 years after the war), and the cost, to us, of giving this unwarranted advantage to a few selfish politicians is now \$109,000,000 a year.

The strictly pork-barrel Act of July 3, 1930, authorizes a monthly cash payment to any "veteran" who is now or may hereafter be suffering from a 25 percent or greater permanent disability from any cause whatever, having no relation to the War. In less than three years, more than 400,000 "veterans" have grabbed their share of the pork, which is now costing us \$104,000,000 a year and will be more expensive every year, up to a figure which one scarcely dares to contemplate.

The equally venal Acts of Aug. 9, 1921; Mar. 4, 1923; June 7, 1924; and July 2, 1926, broadened the "presumption" that certain disabilities are of service origin, to the extent that General Hines, head of the Veterans' Administration, estimates that, under these Acts alone, payments for disabilities having no connection with the War are costing us \$125,000,000 a year.

These six acts could be repealed without working any injustice to a single man who was disabled in the actual defense of his Country, nor to a single dependent of

one who died, and such repeal would save us, directly, \$338,000,000, plus about \$82,000,000 which would be saved indirectly, by reduced expenditures for administrative costs—a total of \$420,000,000!

There are now under construction, Veterans' Bureau Hospitals and additions (including ten new hospitals) to provide 7,190 new beds (each one of which will take a patient away from the care of a civilian physician and a local hospital), at a total estimated cost, to us, of \$15,750,000.

There are large quantities of similar pork in other departments of the Federal Administration, and there seems to be little hope that there are or are likely to be, under present circumstances, enough men of large caliber and real patriotism in the Congress to change these conditions materially, unless an aroused electorate forces it upon them.

Here is a matter which comes home, directly, to every medical man, both as an American citizen and taxpayer, and as a physician, and it would seem to be time that every member of our profession should constitute himself an educational committee of one, to use his full influence among his patients and townspeople, as well as co-operating fully with all existing or now-forming agencies which are striving to make greed-blinded peanut politicians see the light of a new day in American social administration.

---

### PRAY WISELY

Men burn their wheat and fruit rots on the ground;  
But still I hear the hungry children weeping.  
Pray a loud prayer, to make the sky resound.  
Perhaps the gods are sleeping!

The bureaucrats seem safe, though all else tumble.  
"Another tax, to buy the suckers bread!"  
Ah, pray to hear a leader's footsteps rumble!  
What if old gods be dead?

G. B. L.



## LEADING · ARTICLES

### Recent Progress in the Treatment of Cancer (Part I)

By Charles F. Geschickter, M.D., Baltimore, Maryland

Surgical Pathological Laboratory, Department of Surgery, The Johns Hopkins Hospital and University

**I**N the last half of the nineteenth century, progress in the understanding and treatment of cancer was outstanding. The soundness of the conception of cancer as a cellular disease, sponsored by Virchow and his school, and the achievements in therapy attained by the complete operations on the stomach by Billroth, on the uterus by Wertheim, on the breast by Halsted and on the rectum by Kraske, are universally recognized. But it is equally clear that the twentieth century has witnessed the limitations of surgery and the shortcomings of the general pathologic approach to the problems of cancer.

With the conviction that this fruitful epoch has come to its close there has been, in the past few decades of the twentieth century, a widespread search for new methods and a new viewpoint in cancer. Such a new era is rapidly being ushered in through the replacement, in part, of surgery by irradiation; of autopsy by biopsy; of palliation by prevention; and a revision of the precepts of general pathology by investigation into the normal anatomy and physiology underlying tumor formation.

Advances in surgical pathology, irradiation, endocrinology and in the experimental analysis of precancerous lesions, have not only resulted in important changes in treatment, but also in a series of diagnostic and prognostic tests which have revolutionized, in many instances, the modern handling of cancerous cases. It is impos-

sible, however, to review these achievements of recent years in terms of cancer as a single disease entity. Cancer is not a single disease, but a group of diseases. It varies, not only with the organ affected, but with the tissue within that organ wherein it may arise. Likewise it is impossible to discuss treatment in general terms without reference to advances in prevention, diagnosis and prognosis.

Some of the most important advances in prognosis and treatment in recent years have been based upon the thorough establishment of the principle that the tissue of origin, and not the etiologic factor, determines the growth characteristics of the tumor, and upon the principle that the development of the tumor repeats, in order and sequence, the normal histogenesis of that particular part of the body wherein it arises. The first principle, relating to the specificity of the origin, has an important bearing upon modern therapeutics in cancer. The second principle, relating to the cycle of development in tumors, has important bearing upon prognosis or grading of the neoplasms in terms of degree of malignancy.

Because of the importance of these fundamental principles just referred to, the tissue of origin, rather than the organ affected, will be used in discussing recent progress in the treatment of various types of cancer. Despite this general classification, special reference will also be made to such factors as location, age, duration, and

the extent of the tumor, all of which are important factors in deciding the operability or inoperability of the tumor, the possibilities of a permanent cure and the choice between radium, x-rays and surgery.

Because, more and more, it is becoming apparent that the treatment of cancer must be governed by the microscope, the question of biopsy cannot be omitted from the discussion of therapy. As a matter of fact, this procedure is often the first step of treatment and, where the tumor is small, it may suffice to cure. The safety of the procedure has been well established and rests upon only a few fundamental principles, namely:

1.—That the less time interval between biopsy and the complete operation, the safer the procedure: Therefore, where advice is to be sought in the study of tissue, the pathologist should be consulted before the biopsy is made, to minimize the time interval and the possibility of mistakes in technic.

2.—That where the lesion is small, complete excision, with a margin of normal tissue, should be done at biopsy, so that the biopsy and treatment can be combined.

3.—That where the lesion is large or below the surface and complete dissection is not desirable, a small amount of tissue is best taken with the cautery, away from the margin of the growth.

4.—That where the diagnosis on the basis of a frozen section is uncertain, the treatment had best be delayed until the best possible sections can be made and the microscopic examination can be performed by the most competent consultants available.

#### EPIDERMAL TUMORS\*

Probably the most common form of cancer in the body is that which arises in surface epithelium of the skin, oral cavity, upper respiratory tract, urinary bladder and cervix. Where the surface is covered by well differentiated squamous epithelium, the precancerous lesion exists in the form of an area of keratosis, such as leukoplakia in the mouth, keratoses of the skin, or leukoplakia of the cervix. Where the surface is covered by stratified epithelium, a benign papilloma often precedes the cancerous change, such as papillomas of the nasal passages, bladder, anus, larynx, etc.

\*Epidermoid cancer commonly refers to squamous-cell tumors and not to basal-cell lesions. Epidermal tumors here refers to both.

In all of these lesions there has been renewed emphasis upon treatment in the stages preceding cancer formation.

**Leukoplakia:** In the oral cavity it is important that the first sign of keratinization of the mucous membranes, resulting from irritation, should receive prompt treatment. When no cracking or warty formation has taken place, attention to rough teeth or ill-fitting dentures, stopping tobacco in all forms and watching the lesion carefully, often suffices. Where cracking or warty formation has occurred in an area of leukoplakia, biopsy is indicated and, if the lesion is small, the biopsy should include complete excision. In the more persistent areas of leukoplakia, a new form of treatment has recently been tried. This consists in the administration of vitamin A, taken either by mouth or hypodermically. It is now possible to procure vitamin A in halibut-liver oil, with vitamin D, or vitamin A alone. The rationale of the use of vitamin A, in precancerous lesions of the epidermoid type, is based upon keratotic lesions observed about the eye with vitamin A deficiency.

**Senile and X-ray Keratoses:** Keratoses on the backs of the hands or upon the forehead and about the upper face are usually of the squamous-cell type. They are precancerous lesions, best treated by general cleansing and kept moist and soft with petrolatum or yellow oxide of mercury ointment. In such cases there is no harm in prescribing vitamin A. If the area persists, the lesion may be treated by x-ray therapy, unless the keratosis is a result of an x-ray burn, in which cases unfiltered radium or radon may be substituted. In the warty or keratotic lesions which have begun to weep or ulcerate, biopsy is indicated and should be performed along the lines indicated in leukoplakia.

About the eyes, upon the nose, on the cheeks or upper lip and on the parts of the body covered by clothing, the warty area is apt to be of the basal-cell type, or so-called seborrheic keratosis. Here irradiation, of the low-voltage type, is best employed (140 kilovolts at 4 milliamperes, unfiltered or filtered through 3 millimeters of aluminum at 30 centimeters distance). Radon, filtered through 1 millimeter of brass, at 1 centimeter distance, may be



used. In the more persistent areas, biopsy is indicated.

**Leukoplakia and Papilloma of the Cervix and Urinary Bladder:** Because of the importance of detecting these precancerous lesions in the cervix, the modern treatment depends upon a periodic pelvic examination. Women who have borne children should have a pelvic examination once or twice a year and a biopsy of any suspicious lesion. Infection or lacerations should be treated or repaired. Susceptibility to cancer in these cases depends apparently, not only upon lacerations and endocervicitis following childbirth, but also on a metaplasia in which glandular epithelium is replaced by squamous cells during pregnancy, in response to some hormone.

In papillomas of the bladder, the first evidence of the lesion is usually hematuria. Cystoscopic examination, removal of the papilloma by the endotherm, followed by careful fulguration of the base, should be performed and the specimen should always be subjected to microscopic examination.

One of the most important advances in the past decades, in the treatment of epidermoid carcinoma, is the realization on the part of the medical profession (passed on to the laity) that leukoplakia, keratoses and papillomas are the precursors of this type of cancer, and that the most effective treatment is administered in the precancerous stage. In no other type of cancer have such strides been made in detecting and treating the disease in its earliest stages.

Fully developed cancer of the skin or mucous surfaces may be of the squamous or basal-cell type. Both forms may be treated by either irradiation or surgery, and it is in the finer discrimination between the two types of treatment that much progress has recently been made.

**Basal-Cell Cancer:** Basal-cell cancer occurs in those same areas of the skin, eye, nose, cheek and body where basal-cell warts are found. Basal-cell cancer may also be found on the mucous surfaces in the nose or nasopharynx, or arising from remnants of the branchial clefts. The so-called basal-cell carcinomas of the cervix are, in reality, highly malignant or Grade IV squamous-cell carcinomas. Basal-cell cancer may also occur in the parotid gland and may be the predominant feature of

adamantinoma of the jaw. When occurring on the mucous membrane, basal-cell cancer will metastasize in the same way that squamous-cell cancer does; elsewhere it is prone to extend and recur, but not to metastasize.

With the non-metastasizing basal-cell cancer or rodent ulcer, superficial x-rays or the application of radium in the form of a plaque is highly successful, in many instances. Despite this success, it is erroneous to look upon these tumors as markedly radio-sensitive, as was formerly the case. They are relatively resistant to irradiation and, when occurring in the depths (invading bone or in the parotid gland), they are extremely difficult to treat. It is important to know that recurrent cases after adequate irradiation are often better handled with thorough excision with the cautery than by persistent irradiation.

The metastasizing basal-cell carcinomas of the mucous membranes (so-called adenocystic basal-cell cancer) are radio-sensitive to the same extent as the other basal-cell lesions. The basal-cell carcinomas of the parotid are more radio-resistant and are best treated by the combination of excision, followed by irradiation of the tumor bed, preferably by means of the implantation of radon seeds.

**Squamous-Cell Carcinoma of the Oral Cavity, Skin, Cervix, Urinary Bladder and Respiratory Epithelium:** Squamous-cell carcinoma in these regions is radio-sensitive to a degree which is best determined by a careful grading of the microscopic sections and an evaluation of the locality affected. Grades I and II of squamous-cell carcinoma of the more highly differentiated type are relatively radio-resistant, but do not rapidly extend beyond the field of irradiation. Many at the base of the tongue, about the fauces and in the floor of the mouth are more highly radio-sensitive. On the other hand, Grades III and IV of the more undifferentiated type are more radio-sensitive, but rapidly extend beyond the field of irradiation.

On the skin and on the anterior two-thirds of the tongue, or on the lower lip, squamous-cell carcinoma may be treated by excision or the interstitial or surface application of radium. If radium is used, it may also be followed by excision. In Grades I and II of the squamous-cell carcinoma, treatment of the regional lymph

nodes by deep x-ray therapy is optional but preferable, when these lymph nodes are not grossly involved by metastases. In Grades III and IV, and where gross metastases are evident in the regional lymph nodes, regardless of microscopic grading, the glands should be irradiated with the deep x-rays or radium pack (teleradium), followed by surgical resection. At the Radiumhemmet, in Stockholm,<sup>1</sup> cancers of the mouth, with involvement of the regional nodes, showed the best results when irradiation of the regional nodes was followed by surgical resection.

In squamous-cell carcinoma of the cervix and the posterior third of the tongue, about the fauces and in the floor of the mouth, irradiation is the treatment of choice. Here the best type of treatment is with radium, combined with deep x-ray therapy.

The perfection of the treatment of carcinoma of the cervix with small amounts of radium, at the Curie Institute of Paris, is one of the outstanding achievements in modern cancer therapy. An intrauterine applicator of 30 to 50 milligrams, filtered by 1 millimeter of platinum, and an intravaginal application, in three tubes of 10 milligrams each (total of 30), filtered by 1½ millimeters of platinum, is used over a period of 5½ days. This is combined with external irradiation (Cutler<sup>2</sup>).

**Tumors of the Respiratory Epithelium:** The lining membranes of the nose, paranasal sinuses, larynx and of the entire bronchial tree are of the epidermoid type. Whereas, in previous years, a distinction was made between carcinoma of bronchiogenic origin and alveolar cancer of the lung, Fried,<sup>3</sup> in his latest monograph on primary carcinoma of the lung, concludes that all of these tumors are bronchiogenic in origin. In all forms of carcinoma of the respiratory epithelium, including sinuses, larynx and the nose, recent advances in irradiation indicate that radiotherapy will surpass the results achieved by surgery. In the sinuses, the results obtained by the use of radium element or

radon are beginning to show improvement over those achieved by operation with the cautery. In the larynx, irradiation, using teleradium or the Coutard method of external irradiation by means of deep x-ray therapy, are comparable to the results achieved by laryngectomy, in intrinsic carcinoma, and are far superior to the results obtained by surgery in extrinsic carcinoma.

One of the outstanding advances in irradiation technic which has achieved its best results in malignant growths about the neck is the **Coutard<sup>4</sup> method**. This method attempts to increase the amount of irradiation given by fractioning the doses and giving them over a longer period of time, with a greater total amount of irradiation. The total doses recommended by Coutard for one field amount to 3,500 r. or more. This dosage is tolerated by the skin when the daily dose does not exceed in the neighborhood of 200 r. In deep carcinoma, several such fields may be treated, with a total depth dosage, in some cases, amounting to 10,000 r., which is about ten times the amount which it was formerly possible to give.

Another factor in the Coutard method is the protraction of the single dose, the purpose of which is also to diminish the injury to the skin as much as possible. Coutard accomplishes this by increasing the filtration from 0.5 to 2.0 mm. of copper and increasing the distance from 40 to from 60 to 100 cm. He thereby increases the time in which the small dose is given from thirty minutes to from two to four hours. Therefore, according to the original method of Coutard, it is necessary to irradiate a patient with two fields of incidence at least daily for four hours, and to continue this treatment for from three to four weeks.

Bronchiogenic cancer is usually diagnosed late or recognized at autopsy and no proved cures have yet been reported. Many of the cases have been treated by deep x-ray therapy without any noticeable improvement. In many instances brain metastases are the first signs of the disease. It is interesting to note that Fried has not a single chapter devoted to either prognosis or treatment in his monograph of 245 pages.

4.—Borak, J.: The Coutard Method of Roentgen Therapy of Cancer (Ueber die Coutardsche Methode der Roentgenbehandlung des Krebses). *Wien. med. Wchnschr.*, ii, 1677, 1703, 1931.

1.—Report of the Royal Commission on Radium and X-ray, etc. Printed by order of The Legislative Assembly of Ontario, Sessional Paper, No. 41, p. 80, 1932.

2.—Cutler, Max: Treatment of Carcinoma of Cervix with Small Amounts of Radium. *Surg. Gynec. and Obst.*, Vol. LX, p. 481, 1932.

3.—Fried, B. M.: "Primary Carcinoma of the Lung." The Williams and Wilkins Company, Baltimore, Maryland, 1932.

In epidermoid carcinoma of the urinary bladder, of the infiltrating type, interstitial irradiation, combined with external irradiation, is proving preferable to surgical resection.

#### CONNECTIVE TISSUE TUMORS OF THE SOFT PARTS

Fibromas, angiomas, lipomas, xanthomas, together with neurofibromas and lymphomas, constitute the common tumors of the soft parts. With the exception of the last two, which are of neurogenic or lymphoid origin, the bulk of these tumors are derived from connective tissue. These tumors may be benign or malignant, single or multiple, and the worst offense is to shell them out without adequate study, and invite recurrence. Treatment is never so successful with the recurrent as with the primary tumor, and in all the small lesions of the soft parts there should be a complete excision, followed immediately by microscopic study.

Among the angiomas, the hemangiomas are radiosensitive and may be treated by x-ray therapy or the interstitial use of radium. The lymphangiomas are less radiosensitive but are sometimes successfully treated in this fashion. Fibromas and fibrosarcomas are relatively radioresistant. The true xanthomas are generally accompanied by cholesterolemia and, where such tumors exist, it is important to make blood studies and to rule out nephritis and diabetes.

#### NEUROGENIC TUMORS

Neurogenic tumors may occur in the brain, eye, along the peripheral nerves or in the outlying sympathetic structures. In neurogenic tumors of the outlying sympathetic structures, progress has been made in diagnosis, but not in treatment. The commonest malignant form of these sympathetic tumors is the extremely small-celled neuroblastomas, which occur in children and are often mistaken for lym-

phosarcomas. They are, however, radio-sensitive. These tumors are referred to as sympathoblastomas when arising in the adrenals; medulloblastomas when occurring in the cerebellum; and retinoblastomas when arising in the retina, the commonest locations for such growths.

In neurogenic tumors of the peripheral spinal nerves there is dispute as to the value of irradiation. Certainly, if the tumor is small and single, it is best treated by complete excision, with sacrifice of the nerve filaments entering the tumor. In recurrent neurogenic tumors, preoperative irradiation, followed by resection, apparently offers more than resection alone, but the data are inconclusive. Low-grade neurogenic sarcomas have been reported cured by irradiation, combined with surgery. In these borderline cases, however, the tumor may possibly have been benign (Stewart and Copeland<sup>5</sup>).

The greatest progress in the treatment of neurogenic tumors within recent years has been in the gliomas of the brain (Cushing<sup>6</sup>). More accurate localization with the ventriculogram, better hemostasis and electrosurgery, by improving surgical technic, and better understanding of the histopathology of these lesions, have made for progress in this field. Among the gliomas, irradiation has not proved highly successful, although, in the spongioblastoma form and in the oligodendroglioma, some good results have been reported. The best results of irradiation in brain tumors have been with adenomas of the pituitary body. About half of the cases show definite improvement in vision and reduction of headache after external irradiation. The cystic tumors of this organ, however, are radio-resistant.

(To be Continued)

5.—Stewart, F. W. and Copeland, M. M.: Neurogenic Sarcoma. *Amer. Jour. of Cancer*, Vol. XV, p. 1235, 1931.

6.—Cushing, H.: "Intracranial Tumors." Charles C. Thomas, Baltimore, Md., 1932.

#### AIRSHIP QUARANTINE

An editorial in *Internat. Med. Digest*, Nov. 1931, discusses the possibility of the transmission of communicable diseases by international air travel. The question has received much attention in the British Empire during the past couple of years. No doubt in the near future most countries will draw up regulations guarding against the introduction of diseases by international airship travel.

# Final Report on the Therapeutic Effect of Oleic Acid and Bile Salts in Gall-Bladder Disease\*

(A Clinical Study)

By Reuben Finkelstein, M.D., F.A.C.P., and  
Emanuel W. Lipschutz, M.D., Brooklyn, N. Y.

**I**N our original communication,<sup>1</sup> we reported on the therapeutic effect of oleic acid and bile salts on a group of patients suffering from cholecystitis. These patients have now been under observation for twenty-two months. The results have been sufficiently gratifying to warrant a continuation of our studies. Another group of twenty-five patients were treated with a combination of oleic acid and bile salts and the results observed during the past year.

This paper deals then with a group of fifty patients suffering from biliary tract infection, followed over periods ranging from twelve to twenty-two months. In view of the nature of the study, we felt that observing these patients over a prolonged period of time, will permit a more thorough appraisal of the value of the form of therapy employed by us.

The diagnosis of cholecystitis was established after a thorough investigation, availing ourselves of the newer and more important diagnostic methods at our disposal. Cholecystographic studies were made in each instance. Patients showing indisputable evidence of cholelithiasis were not included in this series. The details of our routine examination were described in the preliminary report. After the diagnosis was established, the patients were placed on two cubic centimeters of oleic acid, in conjunction with one grain of bile salts, administered in soft gelatin capsules† three times daily, usually before meals. The medication was continued for a period of six to eight weeks, depending upon the promptness with which the individual case would respond to treatment. During this period the patients reported to the clinic once

weekly which enabled us to observe any appreciable changes in the symptoms. As the latter varied with each case, a notation was made, in each instance, of the most prominent symptoms and the effect of our therapy upon them. We employed a symptom chart which we devised for this purpose, as described in our original paper.

We were very careful not to employ any other means of therapy or diet during this period, so as to eliminate, as far as possible, any factors which may have influenced the outcome of our results. At the expiration of the treatment period, the patients were instructed to report about once a month, at which time the symptoms were checked and, in accordance with the results, at the end of the observation period, the patients were placed in their respective classes.

## CLASSIFICATION

In order to properly evaluate the results of this study, we thought it advisable to divide the results obtained in the entire group, into two periods: (1) Initial six to eight weeks period, during which medication was used and results obtained at expiration of this time; (2) the subsequent period, lasting from twelve to twenty-two months, and the effects of the therapy during and at the expiration of this period.

1.—At end of the initial six to eight weeks period during which medication was used, 39 or 78 percent of the patients were improved, and 11 or 22 percent, were not improved.

2.—At end of the second period, lasting twelve to twenty-two months, 38 of the 39 patients who were improved at the end of the initial period of treatment, returned for further observation and treatment. Of these, 20, or 52.6 percent, were symptom-free throughout the course of the observation—from twelve to twenty-two months. Thirteen (13) patients, or 34.2 percent,

\*From the Gastrointestinal Department of the Beth-El Hospital.

†The mixture of oleic acid and bile salts, prepared in soft gelatin capsules, used in this investigation and designated by the manufacturer as "Exicol," was furnished through the courtesy of the Brooklyn Scientific Products Company, Inc., Brooklyn, New York.

reported recurrences, with definite disappearance of symptoms when medication was resumed. Five (5) patients, or 13.1 percent, who were relieved of their symptoms during the initial period of treatment, subsequently suffered recurrences which did not respond to further treatment.

Therefore, of the 50 patients studied in the original group, 39, or 78 percent, were improved after an initial period from six to eight weeks. Of the 38 patients reporting for further observation and treatment, 33, or 86.8 percent, were improved. Eleven (11) patients, or 22 percent of the original 50, showed no improvement at all.

*Types of cases:* As mentioned previously, all cases in this series suffered from a biliary tract infection, usually cholecystitis. In two instances there was an associated infectious hepatitis, manifesting liver enlargement of four and eight centimeters, respectively. In both patients there was a progressive diminution in the size of the livers, which became perceptible within three to four weeks after instituting treatment. In each instance the liver was barely palpable at the expiration of the two-month period of medication. Two cases in this series presented marked jaundice following an attack of biliary colic, with probable common duct obstruction. In both patients the response to medication was pronounced, the jaundice diminishing progressively in intensity and disappearing within a comparatively short period of time. Evidently the back-pressure from the stimulated flow of bile from the liver and gall-bladder was sufficient to force out the obstructing body from the common duct.

#### PHARMACOLOGY

As to the rationale of this form of therapy, we need but to consider the pharmacologic action of the substances used in our study.

Bile salts have long been known as powerful cholagogues. More recently, Chabrol and Maximin,<sup>2</sup> in experimental studies on dogs, have shown that intravenous injections of bile salts tripled the secretion of bile. Puestrow,<sup>3</sup> in similar experiments, has shown that bile salts will produce a profuse flow of bile, lasting over a period of more than three hours. In an experiment conducted by us,<sup>4</sup> on human beings, we have shown that bile salts, administered in small doses transduodenally, increase bile secretion by about 92 percent.

Oleic acid, being a fatty acid, has been shown by various investigators<sup>5, 6, 7</sup> to be a very effective agent in stimulating gall-bladder evacuations. We have, therefore, in combination here, two agents which tend to influence two different mechanisms, one activating bile secretion (cholagogue), and the other stimulating gall-bladder emptying (chologogue). These effects are of primary importance in the medical management of diseases of the biliary tract, and the most logical means of restoring normal function in a physiologic manner. Oleic acid, as we have shown in our experiments on human beings,<sup>4</sup> not only acts as a chologogue, but also augments the cholagogue effect of bile salts by about fifty percent.

By using this form of therapy, we are availing ourselves of agents capable of producing marked choleresis, as well as chologogue effects, oleic acid apparently acting synergistically with bile salts.

#### SUMMARY AND CONCLUSIONS

1.—The results of a clinical study on a series of 50 patients suffering from cholecystitis, and the therapeutic effect of oleic acid and bile salts on their symptoms, are reported.

2.—A thorough investigation was made in each case before the diagnosis was established, and patients presenting definite evidence of cholelithiasis were not included in this study.

3.—The effect of our therapeutic agents on the individual symptoms was carefully noted and followed over two different periods. An initial period of about two months, during which medication was taken, and the subsequent follow-up period, lasting from twelve to twenty-two months.

4.—Thirty-nine (39) patients or 78 percent of this series, responded favorably to the medication during the initial period. Eleven (11) patients, or 22 percent, did not show sufficient response to warrant their inclusion in the above group. Thirty-three (33), or 86.8 percent of cases, responded favorably during the second prolonged period of observation.

5.—It may be concluded from the above results that oleic acid, administered in conjunction with bile salts, exerts a very definite beneficial effect on the symptoms and course of the disorder, in patients suffering from biliary tract disease, particularly cholecystitis.



We wish to acknowledge our indebtedness to Dr. I. Feder and Dr. A. Kleinman for their kind assistance during the course of this investigation.

#### BIBLIOGRAPHY

- 1.—Finkelstein, R. and Lipschutz, E. W.: The Therapeutic Effect of Oleic Acid and Bile Salts in Diseases of the Biliary Tract. *Med. J. and Record*, 135:440, May, 1932.
- 2.—Chabrol, E. and Maximin, M.: Effect of Chologogues on Bile Secretion. *Presse Méd.*, 37:666, May 22, 1929.
- 3.—Puestrow, C. B.: Experimental Study of the

Discharge of Bile into the Duodenum. *Arch. Surg.*, 23:1013, December, 1931.

4.—Finkelstein, R. and Lipschutz, E. W.: A Comparative Study of the Choleretic Effect of Bile Salts and Oleic Acid and Bile Salts. *Ann. Int. Med.*, (In press.)

5.—Copher, G. H., and Kodama, S.: Regulation of the Flow of Bile and Pancreatic Juice into the Duodenum. *Arch. Int. Med.*, 38:647, November, 1926.

6.—Ivy, A. C., and Oldberg, E.: Hormone Mechanism for Gall-bladder Contraction and Evacuation. *Am. J. Physiol.*, 86:599, 1928.

7.—Stewart, W. H., and Ryan, E. J.: Cholecystographic Studies after Administration of Some of the Popular Chologogues. *Am. J. Roent.* 19:341, April, 1928.

896 Park Place.

## Notes from the International Postgraduate Medical Assembly

Reported by George B. Lake, M.D., Chicago

THE International Medical Assembly of the Interstate Postgraduate Medical Association of North America, was held in the interesting and friendly city of Indianapolis, Ind., late in October, 1932. The Murat Theater and Shrine Temple proved to be a highly satisfactory place for the meetings and the exhibitions.

The scientific exhibits were more extensive and instructive than at any former meeting of this association, and the technical exhibits were also unusually numerous and interesting. As usual, of late, moving pictures were a feature of the whole program. The total registration for the meeting was about 5,000, of whom approximately 3,000 were physicians.

Among the foreign guests were Dr. Jose Goyanes, professor of surgery in the National Academy of Medicine, Madrid, Spain, and Sir William I. De Courey Wheeler, of Dublin, Ireland.

#### ABSTRACTS OF SOME PAPERS AND CLINICS

##### URETEROSIGMOIDAL TRANSPLANTATION

By Waltman Walters, M.D., F.A.C.S., Mayo Clinic, Rochester, Minn.

In cases where the bladder will not hold urine—exstrophy, complete epispadias or inoperable vesico-vaginal fistula—the ureters may be transplanted into the sigmoid colon with good results, provided that the anal sphincter is fully competent, but not otherwise.

If the condition for which this operation is performed is benign, the patient is subjected to less risk if the right ureter is

transplanted first, and the left a few days later; but in malignant conditions, both should be transplanted at the same operation. In all cases the ureter is implanted between the muscular and mucous coats of the bowel for an inch or two.

In fifty percent of the patients so treated there was no infection of the kidneys following the operation; and in another twenty-one percent the infection was slight and transient, so that the result may be recorded as highly satisfactory in 71 percent of the patients treated.

If the operation is performed in a case of exstrophy, it is well to correct the deformity by removal of the bladder and a plastic operation at a later date, after the transplantation has proved successful.

#### MODERN MANAGEMENT OF CARDIOVASCULAR DISEASES

By R. W. Scott, M.D., Cleveland, Ohio

Practically all cases of heart disease may be classified, as to their origin, as: (1) Rheumatic; (2) syphilitic; (3) thyroid; (4) hypertensive.

Except in congenital malformations and sepsis, most cases of heart disease, in patients under thirty years, are of rheumatic origin. Heredity is a definite factor here. Rheumatic diseases—arthritis, chorea, carditis and "growing pains"—are most common in the winter and spring.

Rheumatic patients between five and fifteen years show heart complications in 75 percent of cases, so it is well to treat all young rheumatics as if they were heart patients and keep them in bed from the

beginning, for a period of at least *three months*, under close observation. If the heart is actually damaged, they must be kept in bed longer—up to a year or more—the same as patients with pulmonary tuberculosis. When the disease has progressed to the point where diagnosis is easy, treatment is of little value.

*Syphilis*, often of the latent type, is the cause of 15 percent of heart cases. The aorta is most commonly involved, at its root; then the valves and the mouths of the coronary arteries. The period between infection and the appearance of heart symptoms may be from five to forty-eight years (average, 20 years) and the primary infection is often symptomless and unrecognized.

For best results, these cases must be diagnosed and treated *early*. A fluoroscopic examination of the aorta should be made in all syphilitic patients. Atypic anginal attacks and a tympanitic cardiac second sound are suspicious symptoms. A *negative Wassermann reaction* does not rule out syphilis. Antisyphilitic treatment is of value in these cases, unless the heart is already decompensated.

We must think of *hyperthyroidism* in all cases of heart disease, because, if the condition is recognized and treated early, much improvement can be obtained.

The suggestive signs in these cases are: Palpitation and auricular fibrillation; a pulse rate above 90 when the patient is in bed, with no response to digitalis; an apprehensive stare, but not exophthalmos; a warm skin and perhaps tremor; loud, strong heart sounds.

More than sixty percent of patients with *essential hypertension* die of heart failure. The heart is overloaded and fails, or coronary sclerosis develops. The heart is found hypertrophied to from two to four times its normal weight. The earliest symptoms in this condition are dyspnea on exertion ("cardiac asthma") and swelling of the ankles.

The treatment of hypertension, before and after the heart fails, consists of: Relief of emotional strain; sedatives; reduction of physical exertion, even to the point of rest in bed, if necessary; and the administration of digitalis and caffeine. This condition is not a kidney disease and it is not necessary to restrict the proteins in the diet.

### GALL STONE DISEASE

By Arthur Dean Bevan, M.D., F.A.C.S.,  
Chicago, Ill.

Gall-stone disease is very common, occurring in ten percent of men and nulliparous women and in twenty-five percent of parous women. The factors causing it are: biliary stagnation (due, sometimes, to chronic, interstitial pancreatitis and, in older people, to carcinoma), cholesterol deposits and infection with *B. Coli*, the pus-formers, typhoid and paratyphoid bacilli and other microorganisms. All these factors are more active in women who have borne children.

In most cases, gall-stones are harmless and are not recognized. They cause symptoms in only 25 percent of cases. There is no need to operate unless the stones, of themselves, are causing trouble. If they do cause trouble, it is more dangerous to leave them in place than it is to operate.

The mortality of cholecystectomy, in patients under 40 years, is 2 percent; in those over 60 years, 10 to 15 percent.

### A MEDICAL CLINIC

By Lewellys F. Barker, M.D., F.A.C.P.,  
Baltimore, Md.

The first patient illustrates the fact that a patient may have a number of things the matter with him. This man has received 51 different diagnoses, from various physicians. He is 35 years old, six feet tall and weighs 128 pounds (asthenic habitus). He was gassed in France and was kicked in the inguinal region by a horse.

He comes complaining of pain, not related to food nor exertion, over the precordium, centering around the left nipple; cough, with considerable sputum; and loss of weight. There is dullness over his lung apices and roentgenograms show haziness in that area.

There are four distinct things wrong with this man:

- 1.—Tuberculosis (bacilli in the sputum).
- 2.—Undernutrition (48 pounds under weight)\*.
- 3.—Psychoneurosis.
- 4.—Blind in right eye.

To treat the *undernutrition* (and, at the same time the tuberculosis and, possibly, the psychoneurosis also), this man should

\*The basis of the height-weight ratio is to figure a man five feet tall as weighing 110 pounds, and then add 5½ pounds for each additional inch.

have the **insulin fattening cure**. He must be put to bed and given 3 or 4 units of insulin half an hour before each meal, with a glass of orange juice or chocolate. The insulin should be increased one unit per dose per day, up to 15 units at a dose. His diet should contain plenty of carbohydrates and fats.

For his neurotic trouble (and also, perhaps, for his tuberculosis), he will need psychotherapy, consisting of suggestion and persuasion, administered, with sympathy, tact and firmness.

#### Heart Disease

The second patient is a colored man, 54 years old, who complains of nocturnal dyspnea, swelling of the abdomen and ankles and nocturia. He had rheumatic fever at the age of 25 years.

Examination shows the heart enlarged, with the apex beat displaced downward and to the left; tachycardia; a systolic murmur at the apex and base; enlarged liver; albumin in the urine; auricular fibrillation (electrocardiogram); Wassermann reaction, negative.

The diagnosis is: Aortic stenosis and mitral insufficiency, with myocardial damage and decompensation.

**Treatment:** This patient was given  $\frac{1}{2}$  grain (32 mgm.) of powdered digitalis leaf daily, until he was digitalized. Signs of heart-block developed, and the digitalis was stopped for a time.

If a cardiac patient is obese, the first thing is to reduce his weight.

This patient should be put strictly to bed (in a hospital, if possible), using a bed pan, and should have four days of the Carrell diet (27 ounces of milk daily, in divided doses every 2 hours), followed by the "cardiac diet" (five small meals a day, with not more than 1,200 cc. of fluid). He should have a saline laxative each morning, and sleep should be secured by barbiturates or morphine.

In giving digitalis, the physician should use a preparation with which he is personally familiar, and should be very careful. Strophanthin may be given hypodermically, 0.5 mgm. daily until 6 mgm. have been given. The preparations of theobromine and also quinidine may be used carefully. The object of treatment is to sustain the myocardium until compensation is secured, and then regulate the patient's life to fit his disease.

#### Postencephalitic Syndromes

The next three patients show three atypical postencephalitic syndromes: (1) Speech trouble; (2) oculogyric crises; and (3) loss of the associated movements of the arms in walking, with dorsiflexion of the fist.

The treatment is the same in all these cases: Give good-sized doses of hyoscine hydrochloride (1/100 grain—0.6 mgm.—increasing to 1/25 grain—2.4 mgm.—three times a day) or fresh tincture of stramonium, made from the fresh leaves, 15 minims (1 cc.), increasing to 60 minims (4 cc.), three times a day. These will not cure the condition, but will give great relief.

#### TREATMENT OF HYPERTHYROIDISM

By Frank H. Lahey, M.D., F.A.C.S.,  
Boston, Mass.

In thyroid cases it is necessary to make an accurate diagnosis; but the borderline cases will tax the resources of experts. If there is any question about the diagnosis, there is no harm in waiting. No doubtful case should ever be operated upon.

If the basal metabolic rate (B.M.R.) and the clinical symptoms do not agree, one of them is wrong. An elevated B.M.R. is more likely to be wrong than is a low reading. We must take a number of tests and get the trend of the metabolic rate which, in any case, is no sound criterion of operability.

Weight loss is a good index of the risk of an operation; but the pulse rate is the best indicator of the degree of thyrotoxicosis, in a patient who is up and about—not in one who has been in bed for some time. "Nervousness" is a subjective and unreliable index of a patient's condition. Unless the thyroid gland is firm and hyperplastic, do not operate at once.

Determine the number and type of operations the patient will need at the time of the first examination, when he is at his worst, thus insuring conservative surgery, without regard to the convenience of the patient or his family.

Rest in bed for at least eight days (two or three weeks, if it seems necessary), with abundance of water and carbohydrates, will help to balance the patient's metabolism. Also give 10 minims (0.65 cc.) of Lugol's solution three times a day. Tell the patient the day of operation and let



him talk to other patients, so that he will gain confidence.

The night before operation, give  $1\frac{1}{2}$  grains (0.1 Gm.) of phenobarbital; two hours before, give 3 grains (0.2 Gm.) of Nembutal; one-half hour before, inject  $\frac{1}{4}$  grain (16 mgm.) of morphine and 1/100 grain (0.64 mgm.) of scopolamine, hypodermically. Then (if the personnel is well trained) use ethylene, with a rebreathing apparatus to take out the carbon dioxide. (Ethylene is dangerous in untrained hands.)

Thyroidectomy is dangerous in patients over 50 years of age and in those who have been thyrotoxic for a year or more; also in the apathetic type of the disease. Those who have lost 50 pounds in weight should have a two-stage operation. Expose only one-half of a lobe at first, and do a two-stage operation if the pulse pressure and rate rise on the operating table.

We must remember that Graves' disease is sometimes self-limited, and that five-year end-results are the only criterion of success.

#### GASTROINTESTINAL DISORDERS OF INFANTS

By W. McKim Marriott, M.D., F.A.C.P.,  
St. Louis, Mo.

In "difficult feeding cases" in babies, we must be careful to give food (calories) enough and at not-too-frequent intervals (2-hour intervals between feedings are too short—the stomach does not have time to empty).

The hungry baby swallows air and vomits food; and starvation alone can cause intractable diarrhea. The underfed baby uses its own fat, muscles and blood for nourishment; and a ten-percent reduction in the blood volume causes a fifty-percent reduction in the blood flow, by which digestion is impaired and resistance lowered.

Dehydration is often a serious feature of these cases and, when present, water must be given freely, subcutaneously or intraperitoneally. If fluid is lost by vomiting, alkalosis, with shallow and irregular respiration, will result; if by diarrhea, acidosis, with deep breathing, will appear. In the former condition, give chlorides with the fluid introduced; in the latter, give sodium bicarbonate; in both conditions, give 10-percent dextrose, by continuous intravenous infusion, at the rate of 2 or 3 cc. per kilo per hour.

The food intake should be arranged on the basis of 50 calories per pound of ideal

weight per day. If the food is not assimilated, a transfusion of 25 cc. of citrated blood per kilo should be given, and repeated in 24 hours if needed.

#### TUBERCULOSIS IN CHILDREN

By Harold B. Cushing, M.D.,  
Montreal, Can.

The cause of tuberculosis in children is the same as in adults, but the manifestations and diagnosis are quite different. Children have a strong resistance to tuberculosis, but any child living in the house with an open case will contract the disease.

The diagnosis is not by physical examination, as in adults, but by the tuberculin test and roentgenograms of the chest, to discover enlarged (and sometimes calcified) peribronchial lymph glands.

Phlyctenular keratitis is almost always tuberculous, and papulonecrotic tuberculides (like acne lesions with necrotic centers) appear on the arms, thighs, buttocks and elsewhere. Hard, palpable cervical glands are found (not the suppurative type, which was common with bovine bacillus infections), but should not be treated radically. We must treat the patient.

Nearly half of the children twelve years old have tubercle bacilli in their bodies, but if these cause no symptoms they may be disregarded, if discovered, merely noting the fact for future reference.

Before the age of one year, tuberculous infection is easy and dangerous; after that the resistance is good. If these patients are properly treated, the prognosis for arrest of the disease is hopeful.

#### FRACTURES

By William Darrach, M.D., F.A.C.S.,  
New York City

Early treatment of fractures is always important, and cases which have had proper first aid treatment do vastly better than those which have been carelessly handled.

There is no use in making traction without countertraction, nor unless the reduction can be maintained.

In supracondylar fractures of the humerus, look out for rotary displacement.

Do not put up the arm in flexion without first reducing the fragments. If this is done, the brachial vessels and nerve may be kinked or pinched, so that atrophy results below the lesion (Volkmann's

ischemic paralysis). It may be necessary to release the posterior fragment by *hyperextension*, and then replace it by direct traction. Paralysis may also be caused by too-tight bandages. In that case, *early treatment* leads to improvement, but if delayed gives little or no help.

In fractures of the forearm, the plaster splint should go well above the elbow, which is flexed to a right angle, and should be short enough at the lower end to permit movement of the fingers and metacarpals. *Watch the ulnar nerve!*

Fractures seen late, after poor treatment, do better with *open reduction*.

In many fractures in young children, improvement progresses with growth. This does not work after 15 to 17 years of age.

#### DIGITALIS

By Henry A. Christian, M.D., F.A.C.P.,  
Boston, Mass.

There is no antidote for digitalis, once it is fixed in the heart muscle (and that occurs soon after it is given), so do *not* give toxic doses. The effect of frequently repeated small doses is cumulative, and, if toxic symptoms develop in the course of such treatment, some time (24 hours or more) is required to clear them up.

In giving digitalis, figure out how much the particular patient can tolerate (say  $1\frac{1}{2}$  grains—0.1 Gm.—a day), and give that dose. If it is too large, nausea and other symptoms of overdosage will soon appear. If this happens, *stop the digitalis entirely* until all symptoms disappear, and then begin again, with smaller doses. When the daily dose is determined which is *just short of producing toxic symptoms*, give it daily for the *rest of the patient's life*, increasing the amount if signs of cardiac insufficiency develop.

Other organs and tissues than the heart fix digitalis, in a regular ratio. There is no effect upon the *heart* if this drug is injected into the aorta. There is no advantage in giving digitalis intravenously, except in very rare cases, as the same amount which has to be given parenterally will produce equal results if given by mouth or rectum.

In patients with hypertension, if the heart *begins* to enlarge, find the optimum dose of digitalis for that patient and begin to give it *at once*, before decompensation

develops, to prevent or retard cardiac hypertrophy. The hearts of those who have taken digitalis for some time are smaller than those of persons who have not done so.

Age dehydrates the heart muscle, and digitalis acts best in the old, to whom it may well be given on general principles. There is no loss of effect due to toleration. The same dose will produce the same effect, year after year; and it does not injure the heart in any way, even when given for long periods of time.

#### DIABETES

By Elliot P. Joslin, M.D., F.A.C.P.,  
Boston, Mass.

The tendency to diabetes is hereditary, appearing as a mendelian recessive character, which may appear in a family after years, and tends to develop earlier and earlier, in successive generations. If sugar is once found in the urine, we must assume that it is still present until the contrary is *proved*.

Children in diabetic coma are sometimes relieved by as little as 13 units of insulin; and sometimes they require as much as 800 units. We must give *repeated, moderate* doses until we have given *enough*. These patients can be restored to good condition, if reasonably well handled.

We must be careful not to confuse diabetic coma with appendicitis. If both conditions are present (as sometimes happens), give insulin *first*, and *then* operate.

If a diabetic child is especially quiet and "good," with the palms and forehead a bit sweaty, the face pale and the eyes large, look out for *hypoglycemia*, test the blood for dextrose and have sugar or orange juice at hand to meet such an emergency. We must check the dosage of insulin frequently, as it often goes wrong—too much or too little.

Physician and patient must cooperate in working out a diet that will be satisfying, so that there will be no breaking over. Only intelligent people live for years with diabetes.

Pregnant women with diabetes produce very large babies, fifty percent of which die, if delivered at term. We must bring on labor at seven months, while the child is small enough to pass through the birth-canal.



# Teaching Technic\*

By T. E. Darby, M.D., Washington, D. C.  
Lt. Col. Med. Corps, U. S. Army

THE subject of teaching technic is a natural corollary to educational psychology. Since we are dealing with the mind altogether in teaching, it follows that all successful teaching methods must be founded on mental characteristics. The technic of teaching covers the details of the performance by which we impart instruction. It may be divided into a consideration of the component factors concerned: the instructor, the students and the method. Let us analyze these, altogether from the viewpoint of how they react on the average mind.

## INSTRUCTOR

The requirements of a good instructor are many. Naturally good instructors are just about as rare as naturally good singers. Very fortunately, instructors are much easier to produce, since theirs is largely a mental accomplishment, rather than a physical one. The old saying, that instructors are "born and not made," has been thoroughly disproved with the development of our excellent educational system. It is extremely rare that anyone with the proper basic requirements cannot be made into a successful instructor.

We will assume, to begin with, that one has these basic qualifications, including a thorough knowledge of one's subject. In addition, physical and mental fitness at all times are fundamental necessities; therefore, physical and mental training must be continuous, interspersed, of course, with the proper amount of relaxation and recreation, to avoid going stale. Aside from these, all the qualities required in the good instructor may be summed up under the general term, personality. Without a good personality one cannot make a good instructor. Many qualities go to make up personality—so many, in fact, that we can only consider some of the more desirable attributes.

First of all, the instructor must have an even and agreeable temperament, so that his students can and will approach him. An instructor with a disagreeable temperament

antagonizes his students at once, and that usually spells poor results. In general, there are only three causes of a disagreeable temperament: bad health, narrow-mindedness and inborn meanness. Bad health can often be cured; narrowness of view can usually be broadened by education; but for innate meanness no treatment has ever been successful except the axe. The successful instructor must have some of the milk of human kindness in his make up.

The appearance of the instructor has considerable bearing. He is constantly in view of his students while teaching, but he wants their attention fixed on his subject, not on himself; consequently his clothing and toilet should be faultless, and there should be nothing about his appearance to distract the attention of the students—not even over-fastidiousness. A good part of his prestige will depend on his appearance.

His voice is an intimate part of his personality. The voice reflects the mind to a marked degree. He must pay some attention to the possibly unmusical quality of the actual noise he is making, and consider how it is striking the ear of the audience. A harsh, rasping, high-pitched, strained voice detracts greatly from its easy reception.

Enthusiasm is an important part of his personality. Nothing is so contagious as enthusiasm. An apparent interest and belief in one's subject is the surest incentive to a corresponding attention and interest in one's hearers.

Closely allied to enthusiasm is zeal. It differs, however, in that enthusiasm is the outward show of interest, while zeal is an inward and less conspicuous manifestation, which results in conscientious and painstaking preparation and work. It means industry and thoroughness.

Self-confidence is a basic requirement and carries conviction with it. It is founded on a good conscience, a thorough knowledge of one's subject, and a feeling of ability that one can do what is to be done. It sometimes appears only after an instructor has demonstrated repeatedly to himself that he can really instruct. That is unnecessary, however. It should be a state of mind

\*This is the second in a series of three articles on "Teaching Technic," the first of which appeared in the November, 1932, issue, p. 782.

from the very first, founded on conscientious preparation for his job, both general and special.

Over-confidence, of course, is a bad quality and often the precursor of a downfall. The possessor of a "swelled head" usually rides to his downfall while blinded by a smoke-screen of self-admiration. On the other hand, great diffidence and lack of confidence are even more sure of failure. Moreover, every speaker owes it to his audience not to show apparent embarrassment; it is very painful to an audience to have to feel sorry for the speaker.

Diffidence in a speaker may be caused by lack of knowledge, lack of experience or hypersensitiveness. Lack of knowledge can certainly be corrected; lack of experience may be corrected, in time, by seizing and making opportunities; hypersensitiveness is an undesirable mental quality, which one can largely correct by a little deep introspection and the use of will power and common sense. Paradoxical as it may seem, diffidence from this cause is usually not an expression of the instinct of self-submission at all, but a symptom of an exaggerated ego—even vanity. The victim is really thinking entirely too much about himself.

Dignity is, of course, essential in an instructor, if he would have the respect of his students. This should not be of the stiff-backed kind that makes one seem unapproachable. The dignity referred to here is entirely compatible with good humor, sympathy and even good fellowship.

Loyalty is a most desirable attribute of personality. It implies loyalty to prescribed doctrine, to superiors, to fellow-instructors, and also to subordinates. The instructor must never forget this loyalty from above, as well as from below—the loyalty he owes to his students.

A correct and high code of *honor* is absolutely essential to a strong personality. It doesn't strengthen one's personality just to assume the attitude; one must also live it. The man who can obey the letter and not the spirit of an order, who can "put one over" so cleverly that he cannot be detected, or who can tell just enough of the truth to establish his point, is in the wrong profession. He should have been a crook.

Another essential quality of an instructor is *leadership*. He is the leader of his group of instruction in every sense, and must be so or fail; he must exhibit all the qual-

ities and mannerisms of a leader. A discussion of the qualities of leadership would make a very large subject in itself. Suffice it to say that it is essential in teaching, because good leadership results in cheerful willingness and cooperation, and therefore accomplishment, for we do these things best which we wish to do, or at least are willing to do. The instructor should assume, naturally and openly, the leadership which is his by virtue of the job, and avoid using any bluff or defense reaction, for that is soon detected. The sum total of the students' opinion of the instructor will probably be very correct, in spite of any histrionic ability he may possess.

#### THE STUDENTS

Let us next consider the students in an ideal condition and environment. There are a number of important factors here which greatly facilitate the process of learning. Some of these are altogether mental, such as certain basic instincts and mental qualities which have a bearing on learning. These have already been discussed under "Education Psychology." Others are physical in their aspects, and these may be subdivided into visual, auditory and personal comfort factors.

Under the visual factor we must always remember that, in teaching, it is very essential that every student be able to see the face of the instructor constantly, and vice versa. It is even better if they can see most of his figure, hence we get on a platform above our audience, or in an amphitheater below it. A speaker cannot hold the attention of his audience long without the aid of the eye. That is why we should look at our audience practically continuously while talking—and look *right at them*—not over them nor around them, but directly at persons in the audience. You can wake a man up out of a fairly sound sleep by merely looking at him intently.

Since we wish to focus attention on our subject, we should do nothing to distract this attention to ourselves, such as purposeless walking up and down, standing immovable like a statue, making some constant or meaningless or purely nervous gesture. We should do nothing with regularity and monotony or without purpose; else the attention of the class will certainly be, in part at least, focussed on that. On the other hand, the use of diagrams, maps,

pictures and the like, are all great aids in fixing the attention on the subject. In this connection we should remember that, when figures and writing are too small to be read beyond the first few rows, it is a decided irritant to the remainder of the listeners and greatly detracts from attention, interest and the aid of the eye in learning.

Any extraneous distraction to the sight, such as facing the audience toward the sun, a glaring window or an unshaded light, is a potent interest destroyer. Likewise, there should be no other diagrams, maps or other exhibits in the line of sight, other than the ones we are actually talking about at the time, or closely related ones. On the same principle, on outdoor work, we should not hold a discussion, for instance, along a busy road where every passing vehicle will distract attention, when by moving off a short distance we may gain comparative privacy.

The auditory factor is of equal importance and likewise may be divided into the noise we make ourselves and extraneous noises. It is a basic rule that one should talk loud enough and distinctly enough to be heard easily by the most distant part of the audience. This requires that one be facing the audience at all times when talking. One must also pay attention to the volume of the voice and enunciation of words; and of these two factors, enunciation is the more important in hearing.

Extraneous noises will more certainly distract attention than extraneous sights. One can look away from such sights, but sounds impinge on the ear in such a way that one cannot dismiss them. To continue to talk, for instance, as a motorcycle roars by, is a perfect waste of effort and time, for both the instructor and the students. Even though the instructor can make more noise than the motorcycle, the attention of the student is distracted just the same and he will probably miss everything said. It is best to cease talking altogether until the sound subsides. It is not an awkward pause. Every hearer will recognize the reason and give the speaker credit for good judgment and poise.

Personal comfort factors do not require description, but attention. The point to remember is that the more uncomfortable a student, the less he is going to learn; therefore every attention should be paid, beforehand, to such factors as tempera-

ture, humidity, lighting, ventilation, space and similar factors.

#### METHODS

Under methods of instruction, there are a number from which to select the most appropriate in each case. There are the lecture, the conference, the quiz, the demonstration and the applicatory method.

The *lecture* method is the most formal. At the same time it is the quickest and, in a group with a high degree of intelligence and training, it is often the most satisfactory, at certain stages of instruction, for both the instructor and the group.

The method by which it is intended to present the lecture will also have a very important bearing on its suitability. Sometimes, unfortunately, the instructor may have to read the entire lecture, in which case it really ceases to be a lecture and becomes a reading. This is the poorest way of presenting instruction. Moreover, there are very few naturally good readers.

If, for any reason, it is absolutely necessary to read a lecture, in order to make it a successful method of instruction it should at least be rehearsed aloud a number of times beforehand, to see wherein the emphasis lies and so that it will not be necessary for the reader to keep his eyes glued to the paper. When he does that he loses all of the benefit of the eye in holding attention. When, finally, the reader becomes so familiar with his subject and paper that he only has to glance at his manuscript to get the idea, and can then continue the idea while looking at his audience, the reading reverts to the classification of a lecture. It is really a dramatic reading, and, if well done, can be made a suitable method of instruction.

When one has reached that stage, however, one could probably give the lecture better by the aid of fairly voluminous notes, giving, if necessary, the exact words with which to start each paragraph or new idea; the next stage is notes showing the headings or ideas in their order of sequence; and the ideal way is to give the entire lecture without any notes or concealed aids whatever, other than mental notes which the speaker has in his mind's eye, or an outline of his lecture on a black board, for the benefit of both the students and the speaker.

The *conference* method, in its purest form, consists of a series of very short



lectures or explanations, given alternately by the instructor and individual students. It presupposes preparation by the students, as well as the instructor. It is more difficult to conduct a good conference than it is a good lecture, for both sides are talking more or less extemporaneously and the subject is very liable to get out of the channels in which the instructor would like to keep it. By the use of tact and headwork, however, the instructor can usually work up a lively discussion on important points.

A conference is an excellent method of teaching, and also shows the instructor just how much information he has already imparted. Its drawback is that it requires considerably more time to cover the same ground than does a lecture. If we do cover the same ground in the same time, we find that only the high points have been touched. Of course, it is hard to tell, sometimes, where conferences leave off and lectures begin. If only one or two questions are asked, calling for very short discussions, it is, to all intents and purposes, a lecture and proportionately more ground can be covered.

The *quiz*, or question and answer method, is being used less and less in our schools, except in the primary schools, to test the memory on information contained in assigned lessons. It is introduced here merely to condemn it and because unskillful questioning in a conference will make it deteriorate into something very much like a quiz. Questions should never be asked simply as a test of memory, of memorized data or isolated facts. It is assumed that the student knows those to begin with. Our questions should aim at bringing out a discussion of the relation of these facts to the principles involved.

In this connection, it is important, when asking questions of a group, to put the question first, then pause, and then call on some member of the group for the answer. In that way it causes every member of the group to think and formulate an answer. Otherwise the majority of the group will simply listen, more or less attentively, to the answer given.

The *demonstration* method is the simplest, easiest and one of the quickest methods of teaching. The subject is on demonstration, either actually or in diagram, and the teaching consists of a step-by-step explanation of all its component factors, in their logical sequence, being sure that each

step is understood before proceeding to the next. It is the ideal way of taking advantage of the eye as well as the ear in teaching; it is also an aid to memory, for it is a well known fact that we can remember things we see far better than those we simply hear, hence we remember faces better than names. Its drawback is that it does not require original thinking. If that is required, some other method should be selected.

In considering the demonstration method we might remember that, in teaching anything we cannot demonstrate, we can at least approach this ideal combination of the eye and ear in learning, by improving our ability to draw accurate word pictures of the thing we wish to describe. If we can do that, the student at least has a vivid mental picture to remember.

The *applicatory method* requires that the student actually perform the job, some phase of the job or accomplish some form of job-sheet. It is the most practical form of instruction, for we learn best by doing the thing. It is the basis of our teaching system and requires no description here. Taken alone, it is not the best method for teaching everything, as some enthusiasts claim; for instance, it would be very difficult to teach ancient history in that way. On the other hand, methods of research in ancient history may readily be so taught. It is when combined with the other appropriate methods of teaching—the lecture, the conference and the demonstration—that we reach the ideal in teaching. Then the student not only knows how to do it, but also why and when and where.

#### STAGES OF ALL METHODS

Regardless of the method employed, the teaching process, if complete, will divide itself naturally into four stages: Preparation, presentation, application and testing.

*Preparation* involves both the student and the instructor. For the student, this means a preparation of his mind to receive the instruction; it includes arousing interest in the subject so that he thinks and studies along that line. The preparation of the instructor is his most important preliminary. It requires, first, a thorough mastery of his subject by both direct and collateral study. Next he must come to a decision as to the most suitable method of presenting the subject. This decision must come after a careful consideration of what he

wants to teach, how much time is available, the facilities and the average intelligence and stage of learning of the students.

*Presentation* involves the actual use of one or a combination of the methods outlined, embellished by all the aids which a thorough knowledge of pedagogy places at one's disposal.

*Application* consists in applying knowledge already learned to the actual performance of the job, some phase of the job, or as a job-sheet. It is the most practical method of giving instruction, but of course presupposes other instruction beforehand. It is classed as application only when it is used purely for instruction, but this method may be used for either instruction or testing.

The testing stage implies some form of examination. Here again, the applicatory method is the most practical form of testing. In civilian institutions the old essay type of examination—the question and answer method—has largely given way to a more practical type, built up very much on the principle of the intelligence tests so widely used throughout the army by psychologists during the World War. The favorite types are the “true and false”

statement method, the “selection” method and the “missing words” method. Usually all three types are used in any one examination. An examination of this kind usually consists of a very large number of questions, with very short answers. Such examinations are preferred by the student, for he knows exactly what is required of him, and they test his knowledge only, rather than both his originality in writing and his knowledge. It is an excellent test of knowledge, very easy to mark, and lends itself to extremely accurate and uniform grading by different instructors—more accurate, I believe, than is possible by adhering to a comment sheet. This method can easily be combined with the direct applicatory method of testing.

So much, then for a very short review of the factors concerned in teaching technic. It involves a consideration of the instructor, the student and the methods, in their direct relation to the mental reactions of the average student. It is all really a phase of practical and applied psychology, and when used with conscientious attention to its minutiae, it tends to perfection in the art of teaching.

Surgeon General's Office.

---

### PSYCHOANALYSIS AND PSYCHIATRY

*Psychoanalysis, since the beginning of the present century, has aroused interest in many parts of the world. However, while psychoanalysis has been closely associated with psychiatry, its theories did not originate from conventional psychiatric sources. Freud has never been closely associated with psychiatrists as a group. And psychiatrists, far from having endorsed psychoanalysis without reservation, have often been severe in their criticism of it. However, psychiatrists are investigating its principles, many of which have been incorporated into psychiatric practice without appreciation of the origin. Such terms as repression, retardation, inferiority complexes and many other terms used by psychiatrists are of psychoanalytic origin.*

*Psychiatry and mental hygiene have a broader field than psychoanalysis. It would be unfortunate if psychiatry limited itself to preoccupation with psychoanalytic principles and ignored the broad foundations on which it originated. For the present, it would appear best for those who are not fully conversant with psychoanalysis to refrain from undue criticism, but likewise to withhold their full endorsement.*

*Other activities of psychiatrists have been adversely criticized in the aforementioned articles. The latter group of activities are of strictly psychiatric origin, and psychiatrists are responsible for them. These include such activities as child guidance, public education in mental hygiene, the psychiatric social worker and expert court testimony by psychiatrists.—DR. SANGER BROWN II, of Albany, N. Y., in J.A.M.A., Aug. 27, 1932.*

# PHYSICAL · THERAPY AND RADIOLOGY

## ASSOCIATE EDITORS

### FOR PHYSICAL THERAPY

FRANK THOMAS WOODBURY, B.A., M.D.  
JOSEPH E. G. WADDINGTON, M.D., C.M.

### FOR RADIOLOGY

HENRY SCHMITZ, M.D., F.A.C.S., F.A.C.R.  
WILBUR H. GILMORE, M.D.

## EXERCISE

D<sup>RYDEN</sup> sapiently wrote:  
"The wise for cure, on exercise depend.

"Better to hunt in fields for health unbought.

"Than fee the doctor for a nauseous draught."

Drill, calisthenics, and gymnasiums are an earlier scholastic recognition that physical activity is integrally related to mental activity. More modern thought scientifically provides stimulating, collective sports as a more physiologic substitute for the former stereotyped, individualized exercise. Such invigorating, diverting activities for keeping the youth physically fit and mentally alert initiate correct and wholesome habits of mind and body.

To ensure a continuance of such athletic initiative throughout adult life, and thereby ensure an active, as well as a ripe, old age, is as difficult as it is desirable. Disastrously, the artificial exactions of a highly developed civilization permit but scant time and negligible opportunity for the preoccupied worker—or even the social aspirant and sporting dilettante—to apportion for daily healthful (or even erratically periodic) recreational exercise.

The cheap, but by no means superlative, exercise of walking has been rescued from becoming a lost art, in this automobile age, by the far from inexpensive but gregarious substitute, golf. The radio arouses some early morning enthusiasts to a "daily dozen" ritual, religiously—and belatedly—presumed to fit them for the daily grind of toil and unbalanced physical exercise.

Function, the natural and correct action of anything, means activity. To enable the body to function normally throughout all its vitally interrelated activities requires exercise—balanced exercise. Physical therapy employs no agency, natural or artificial, which does not fundamentally embody this vital essential to health; however, to define the subject more locally and less confusingly, exercise here applies more directly to movements of the limbs and musculature which, indirectly, healthfully activate the more intimate processes of life.

The various sports have their various indications, and also, their limitations, as healthful exercise prescriptions. This comprises physical education, and should be more practically recognized by physical therapists as inherently within their own special domain. As a true physician, en-



deavoring to prevent disease rather than attempting to cure, the physical therapist should prescribe natural, physical methods whenever and wherever conveniently available; and, secondarily, prescribe and administer sinusoidal and other contraction-stimulating currents, massage and mechanical exercisers, only when these are more conveniently utilizable. He should also intelligently appreciate and proclaim that a large majority of the "oscillators" and "shakers," so lavishly available for both lay and professional agitation, are no more

effective, as healthful muscle excitants, than driving in a "tin Lizzy" of ancient vintage over a rough and prolonged road.

Exercise, like drugs and surgery, needs to be specific in its indications and its applications; it should be expertly adjusted to the muscular, joint, respiratory and circulatory requirements of every individual, throughout infancy and adolescence to old age.

"Health is the vital principle of bliss; and exercise, of health."

J. E. G. W.

## A Roentgenologic Consideration of the Arthritides

By Louis J. Gelber, M.D., Newark, N. J.  
Assistant Attending in X-Ray Department, Beth Israel Hospital  
and Samuel Goldberg, M.D., Belleville, N. J.

**A**RTHRITIS may be defined as a generalized disease with joint manifestations. No single infectious or traumatic condition nor metabolic disturbance can cause this disease, but some variation of all these may combine to be a factor in its causation.

A great deal of confusion arising in the terminology is apparent, in that "degenerative arthritis" is also described as "hypertrophic," and "proliferative" is designated as "atrophic." This contradiction is due to the fact that one group of writers bases its terminology on changes in soft parts; whereas the other group bases it on bone changes.

Before dealing with the pathologic processes involving the joint, we might well remember its normal parts—articulating surfaces composed of cartilage, the synovial membrane, synovial fluid and ligaments. Neither periosteum nor free bone is normally found in a joint. The diagnosis of a joint condition is accomplished by carefully considering the changes in one or more of its component parts, of which the cartilage is probably the most important. The various chronic conditions met with in arthritis are due mainly to the involvement of cartilage.

Many infectious types of arthritis seem to involve the synovial membrane, with an

increase in the amount of synovial fluid. In these types of joint infections, a return to the normal condition may be reasonably hoped for; while, when the cartilage is involved, the return to normal condition depends largely upon the degree of severity of the infection. It is known that cartilage reproduces itself only to a limited degree and, if a portion is completely destroyed, down to the bone, nature replaces it with either fibrous tissue or osseous tissue. It is in this manner that what may be determined "free bone" in a joint is developed.

For a roentgenologic consideration of the arthritides, we will divide them into:

- 1.—Traumatic type.
- 2.—Infectious type.
- 3.—Atrophic type.
- 4.—Hypertrophic type.

### TRAUMATIC ARTHRITIS

Traumatic arthritis exhibits the picture of capsular distention, with increase in synovial fluid. It differs very little from the first stage of an infectious process, where a swelling of the soft tissues exists. However, if continued over a long time, destructive and productive changes occur in the joint.

Traumatic joints are usually seen in:

- 1.—Riveters.
- 2.—Results in postural deformity, due

to repeated injury to the joint surfaces.

3.—Injuries of bone, where trauma causes proliferation.

The injury may be of several types:

1.—A single severe injury to the joint cartilage.

2.—Repeated mild trauma to the joint cartilage.

3.—Disorganization of the mechanics of a joint.

4.—Faulty weight-bearing on account of bony deformity, so that use brings about repeated injury to the joint surfaces.

5.—Gradual deformity of a joint by abnormal pressure.

#### INFECTIOUS ARTHRITIS

This type includes tuberculosis, gonorrhea, syphilis, pneumococcus infections, also, and those types of arthritis which have the same clinical manifestations, but where the exact etiologic factor is unknown. This group does not seem to be limited to any age period and is just as prevalent in the second as in the third, though it is true that certain acute infections, such as gonorrhea and tuberculosis, are more common in the second age period.

The first change that takes place is swelling of the synovial membrane. In the majority of the joints, the flesh and skin outline will indicate this by the enlargement of the soft tissues. With this inflammatory change of the synovial membrane, fluid will form; in most joints one can infer this by the position of the part and the swelling around the joint; in the case of the knee, the "riding patella" will be seen.

If this infection is severe, the next point of attack will be the cartilage. In this case, also, the structure is not demonstrable by the x-rays and, again, the condition must be determined by indirect evidence; that is, the width of the joint space. If the cartilage is uniformly eroded, the joint space will be narrowed. The infection may go on to complete destruction in certain areas and attack the bone beneath. The moment the bone becomes involved there is direct evidence of destruction that can be demonstrated upon an x-ray plate.

From an x-ray standpoint, infectious arthritis presents three different appearances, according to the stage of the disease at the time of the examination. In the first stage, at the onset of the infection, the plate shows distinct swelling of the soft tissues around the joint, with increase of

STAGE OF CASE STUDIED IN (1928-30)	NUMBER	STATUS	LOCATION	AGE	SEX
TRAUMATIC ARTHRITIS	5	STUCK FRACTURE - WELL DEVELOPED	ONE KNEE SCAPULA DISTAL HUMERUS - LOCATED	ART. AIR	
DEGENERATIVE ARTHRITIS	8		SCAPULA - DISTAL HUMERUS - LOCATED	ART. AIR	
ATROPHIC ARTHRITIS	11	POORLY DEVELOPED - POORLY DEVELOPED	SCAPULA - DISTAL HUMERUS - LOCATED	2-30 YEARS	805 F 136 M
DEGENERATIVE ARTHRITIS	20	WELL DEVELOPED - POORLY DEVELOPED	SCAPULA - DISTAL HUMERUS - LOCATED	40-50 YEARS	885 F 485 M

synovial fluid. There is no cartilaginous destruction, evidenced by the fact that the joint spaces are of normal width. Since the cartilage has not been involved, of necessity there can be no bone change. There is no atrophy, as sufficient time has not elapsed to bring about this condition.

This stage gives the same x-ray appearance as an acute polyarticular rheumatism or an injury to the joint without fracture, because in those conditions fluid and periarthritic swellings are also present and no cartilaginous changes appear.

In the second stage the disease probably reaches its maximum intensity and, in time, changes take place in the joint and bone. Sufficient time has elapsed for the joint to become more or less immobilized, either from pain or treatment, consequently atrophy of the bones forming the joint appears.

The swelling and fluid are still present. The cartilage, in this stage, has become involved and may be more or less destroyed, according to the severity of the infection, as is evidenced by the fact that the joint space is narrowed. The infection may have localized sufficiently at one part of the joint to destroy all the cartilage and actually involve the bone beneath; in this case any bone change can be easily seen upon the plate. While the soft tissues around the joint are still swollen, there may be atrophy of the soft tissues above and below the joint. This is particularly true in long-standing infections, such as tuberculosis. This second stage is variable as to length of time, and the same changes persist as long as the infection is active. The atrophy, however, becomes greater the longer the acute stage exists. There is no production of new bone, as this is a repair process and cannot take place during the height of the disease.

With the subsiding of the infection, the third stage, or the stage of repair, is ushered in. Here, too, the picture is slightly different, depending upon whether the examination is made at the beginning or at the end of this stage. The swelling and fluid have disappeared, the atrophy is still present, and will only disappear when the joint begins to function again. The destructive process, however, has ceased and repair now takes place. Unfortunately, the cartilaginous surfaces which are so easily attacked have little recuperative powers in themselves. Cartilage only reproduces itself to a limited extent, so nature has to fall back upon one of two substitutes; the destroyed area is either filled in with fibrous tissue, or the raw, exposed bone proliferates, filling up the destroyed area. This overgrowth is spoken of as exostosis.

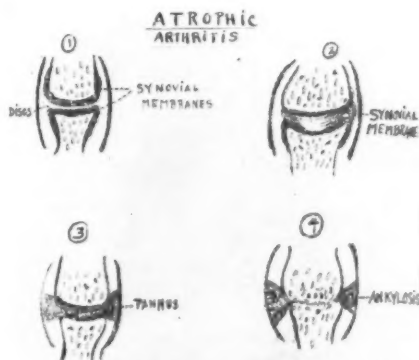
The extent of the overgrowth of the bone is dependent entirely upon the extent and severity of the infection. Where two opposing articulating surfaces are denuded of cartilage, the resulting new bone formation from both surfaces may unite and produce actual bony ankylosis. It is interesting to note that the infection or its toxins shows a marked predilection for the ligamentous attachments, and the first bone proliferation is found in these points.

#### ATROPHIC ARTHRITIS

In a study of 62 cases of arthritis, conducted by us, we found the atrophic type of arthritis, with its cartilaginous destruction and ankylosis, predominant in the tall, poorly-developed, slender, viscerotropic individuals. It is more predominant in females. Here pain, disability and deformity seem to be the chief complaints.

The atrophic lesions are generally seen from birth to middle life. There is a marked atrophy of both soft tissues and bone. The joints are frequently partially ankylosed, due, not to bony, but to fibrous changes and muscle contractures. The x-ray examination shows marked atrophy of bone and soft tissues. There is extensive absorption of cartilage and its complete destruction in certain areas, but apparently nature makes no attempt at new bone formation. There is a thinning or destruction of the joint cartilage, with atrophy of all soft tissues and bone from disuse. There is no new bone formation, as a rule, but frequent subluxation of the joint, due to tendon contraction with lack

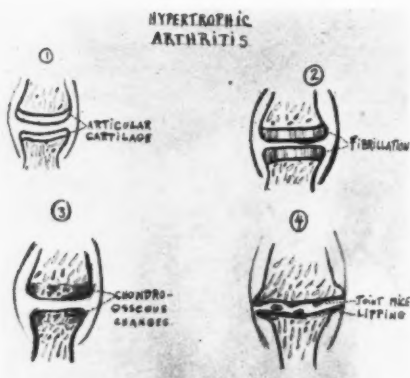
of motion, due to fibrosis and contracture. Although the earliest pathologic change is proliferation of the synovial membrane, which is not definite in roentgenograms, there is also a marked osteoporosis and decrease in density of the bone ends, giving the appearance of atrophy in the x-ray film.



In the atrophic type of arthritis, we note an early proliferation of the synovial membrane, with erosion of the articular cartilage and pannus formation. Finally, destruction in the articular cartilage takes place, with fibrous or bony ankylosis. It is in this type of arthritis that motion is essential in the treatment of the joints. When the joint has recovered as far as possible, there is a marked formation of exostosis or actual bony ankylosis, depending entirely upon the severity of the lesion.

#### HYPERTROPHIC ARTHRITIS

This is a disease almost invariably associated with people of middle and old age. One rarely sees this type in those under forty, and it is most pronounced in patients in the neighborhood of fifty and over, so it may be said this is a disease of the third age period. Attention has already been drawn to the fact that, as we grow older, there is a generalized atrophy of all the bones, which we look upon as normal change due to old age. Consequently, since this disease is one of old age, one would naturally expect to find atrophy in hypertrophic arthritis; on the contrary, however, the x-ray examination shows no atrophy and apparently an increased deposition of calcium, so that the bone shadows are even a little denser than normal.



There is no swelling nor fluid in the joint. The cartilage is destroyed in focal spots in these areas, bony exostoses appear and there is marked new bone formation at the attachments of the ligaments of the joints. Frequently little bony bodies may be present, lying free in the joint cavity. In this condition, these "joint mice" may become engaged in the joint, resulting in swelling and increase of fluid; but this is an accidental factor and is not the normal course of the disease. There may be ankylosis of the joint, but this is not a true ankylosis due to fibrous tissue or bone union, simply a mechanical locking of opposite engaging exostoses. This type simulates the third stage or the stage of repair in an infectious arthritis. The two conditions, however, would only be confused in old people, since the hypertrophic type does not occur in the second age period.

In the cases studied, we found that, in the hypertrophic form, the majority of lesions were found in the lumbar region and became progressively less as one ascended the vertebral column. Therefore, associated with the heavy, well-developed individual, it seems that those segments which are under the greatest mechanical stress undergo the greatest amount of strain and lipping.

As Pemberton concisely states, the peripheral circulation becomes greatly slowed in hypertrophic arthritis, with the resultant formation of fibro- and chondro-osseous spicules, deposited in various parts of the body.

We noted a strong tendency for the ligamentous structures about a joint to become ossified, with marked diminution of function about this joint. In time, these

structures become more and more susceptible to injury and recover slower after trauma.

#### CHRONIC OSTEO-ARTHRITIS

The earliest change in chronic osteoarthritis consists of the formation of osteophytes at the articular margins. These are smooth in outline, usually fairly regular and rounded in shape, and may attain considerable size. When large, they frequently become detached, from minor injury, and may, in some cases, form intra-articular loose bodies. Concurrently with the osteophytic formation, gradual erosion of the articular cartilages takes place, evidenced in the roentgenogram by narrowing of the joint space. In time, the underlying cortex is eroded, but this destruction is counterbalanced by subcortical sclerosis, producing the dense, eburnated surfaces so characteristic of advanced osteoarthritis. Bony ankylosis practically never takes place, because of this.

In hypertrophic arthritis there is increased density of the bone. Therefore, in this condition, a lime salt deposit occurs, in the form of chondro-osseous spicules at the articular margins, which becomes very definite in a roentgenogram. No atrophy of either bone or muscle controlling the joint occurs until very late in this condition.

Briefly, to summarize the difference between these different conditions the following points are to be borne in mind: Atrophic arthritis is seen largely in the second age period; hypertrophic arthritis is seen in the third age period; while infectious arthritis occurs in any age period.

#### ARTHRITIC CHANGES DUE TO AGE

Great care must be taken not to confuse the slight changes which are always present in old people with acute active processes. It has been definitely established that practically all of us, when we reach the age of forty-five, show small exostoses in and around the joints, particularly where the ligaments are attached, and yet there may be no clinical manifestations of an arthritic process. This naturally means that a quiescent arthritis is present, which only needs the proper stimulation to become an active process. It is in just these cases that such marked symptoms follow a slight injury—symptoms out of proportion to the extent of the injury. In this con-

dition we must remember that the injury has simply lowered the resistance of the joint and has allowed this quiescent arthritis to flare up into an active process, really the result of the arthritis and not of the trauma.

Arthritis is a systemic disease; i.e., it has prodromes, the joint manifestations are only local expressions of the systemic disturbances and the processes may manifest themselves elsewhere. A close relationship seems to exist between body and mechanics, condition of the viscera, and the circulation, on the one hand, and arthritis on the other.

The atrophic type of arthritis can be produced experimentally, by injecting rabbits with streptococci, into the joints. On the

other hand, the hypertrophic type cannot be produced experimentally with bacteria. However, hypertrophic arthritis can be produced by putting a foreign body into a rabbit's joint. This seems to prove that atrophic arthritis is bound up, in some way, with trauma or wearing out of a joint: i.e., it is a degenerative process. The importance of this point of view is great, from the standpoint of treatment. It means that, in atrophic arthritis, one's efforts should be first directed to removing all foci of infection, and then one should proceed to build up the patient in a constitutional way; whereas, in the hypertrophic type, one is, perhaps, not so eager to remove the foci, but will direct attention to resting the joint, relieving strain and giving support.

41 Lincoln Ave.

## CLINICAL MISCELLANY

### Artificial Fever in the Treatment of Asthma

**I**N a group of 42 patients with complicated, intractable asthma, mostly non-allergic, all of whom had been unrelieved by the usual methods of treatment, fever, produced by high-frequency currents, was tried and found to be a safe procedure. In those in whom the results have been ascertained, 51 percent had a complete remission, varying from several days to 9½ months, and 29 percent showed improvement without remissions.

In the treatment, the aim is to keep the rectal temperature at 104°F. for 8 hours. The temperature is not allowed to go above 106°. Usually the course is two treatments, at two or three days interval, and these courses may be repeated. Sedatives are usually administered to allay discomfort.—DR. S. M. FEINBERG and Associates, in *J.A.M.A.*, Sept. 3, 1932.

### Epilation by Diathermic Coagulation

**I**N *Le Monde Méd.*, Paris, Feb. 1, 1932, Dr. H. Bordier reports that, in cases of hypertrichosis, he has found diathermic epilation very successful. He employs electric oscillations of high frequency. The destruction of the hair follicle is due to coagulation of the vessels which furnish nourishment to the follicle. The author

uses a special needle with an elliptic-shaped point. A pricking point needle runs the risk of penetrating the follicle walls and causing bleeding, which must be avoided.

### Pelvic Diathermy in Menopausal States

**I**T has been my experience, from a number of cases observed, that, in conditions having a menopausal origin, subjective symptoms are unquestionably relieved by intrapelvic diathermy. It produces effects which beneficially influence the internal secretions in general and the ovaries in particular when, during the menopause, there is an ovarian deficiency.—DR. P. ELLMAN, of London, in *Brit. J. Physical Med.*, Aug., 1932.

### Roentgen-Ray and Radium Therapy

**T**HE common belief, that the roentgen rays and radium are applicable only to malignant disease, has relegated them to the background or crowded them out of the picture entirely in the management of seventy-five or more other diseases. In fact, carcinoma and sarcoma represent only one group, and that not by any means the most favorable, for the use of roentgen-ray or radium therapy.—DR. E. A. MERRITT and associates in *Med. Ann. Dist of Columbia*, March, 1932.



## RECENT ABSTRACTS

### Diathermy Treatment of Deafness and Tinnitus

Medical diathermy is probably the most popular of the various energies advocated in the treatment of hardness of hearing, especially in the hands of general practitioners.

In *Illinois* M. J., Nov. 1931, Drs. M. R. Guttman and M. Kulvin, of Chicago, report upon 42 cases of hardness of hearing subjected to diathermy treatment.

In 9 cases of otosclerosis, 2 cases of tubal occlusion and 1 case of serous otitis, no benefit was observed, as indicated by carefully controlled voice and audiometric tests. Only 3 out of 32 patients with chronic otitis media were improved, and whether this was actually due to the treatment is open to question. The effect of this form of therapy upon tinnitus in otosclerosis was also ineffectual.

Thirty-three (33) of the 42 patients believed that they were benefited by the treatment and could hear better; yet actual tests showed that this was true in only three instances. The improvement was, therefore, only apparent and not real. This method of treatment makes a decided impression upon the patient's mind and any benefit must be of a phsyic or suggestive nature. The value of diathermy in the treatment of deafness and tinnitus is yet to be proven.

The technic followed in these cases was that advocated in the textbook of Hollender and Cottle, and was continued for 3 months, on the average.

### Treatment of Rheumatism by Ultraviolet Rays

In recommending ultraviolet ray treatment of rheumatism, in *Brit. J. Physic. Med.*, Jan., 1932, Dr. A. Bassett Jones bases his opinion upon the possible fact that ultraviolet irradiation alone may be capable of mobilizing tyrosine from the epidermis into the blood stream, the mobilization of this substance being intimately associated with the production of the hormones, thyroxin, adrenalin and insulin and its deficiency being associated with the syndrome of rheumatism.

If the tyrosine mobilization view be accepted, it would go far to explain why rheumatism is most prevalent in smoke-ridden areas where there is inadequacy of sunshine and skyshine.

pital and Blessing Hospital, Quincy, Illinois; etc. With a Foreword by Henry Schmitz, A.M., M.D., LL.D., F.A.C.R., F.A.C.S., Professor of Gynecology and Head of the Department, Loyola University School of Medicine, etc. Quincy, Illinois: Radiological Review Publishing Company, 1932. Price \$1.50.

This little book does for radiology what the aphorisms of Hippocrates, Boerhaave and Sydenham do for general medicine. Avoiding matters which are still in the controversial stage, it gives the facts, both as regards diagnosis and therapeutics, which have been amply demonstrated and time-tested in clinical radiologic practice and are accepted by the profession in general. These facts and observations are arranged in short, pithy paragraphs under the different pathologic and clinical captions to which they refer. They have been collected from the literature and have mostly been already published from time to time as a feature of the *Radiological Review*, of which the author is the founder and editor.

As the author points out, many general practitioners are still unacquainted with many of the advances due to radiology in the correct diagnosis and therapy of disease. The opinions of clinicians of unquestioned eminence regarding the value of radiology in practice, as expressed here, should convince the uninformed or remove the last doubt of the sceptic. The words of Dr. Wm. J. Mayo aptly expresses this condition: "While radiology is highly specialized, the fruits of the labor of the radiologist, as concerns clinical conditions, should be put in the hands of every man who practices medicine."

The book has the approval of radiologists of international reputation. It is well arranged, clearly printed and published at so modest a price that no radiologist or practitioner should be without a copy. We anticipate for it the success it deserves.

## NEWS NOTES

### Occupational Therapy Prescriptions

The Indiana University School of Medicine and Hospitals, Indianapolis, Ind., have worked out a system of prescribing occupational therapy and recording its results, which bids fair to place this form of treatment on a strictly scientific basis.

Those who are interested would do well to write for copies of the forms for prescriptions and records, and any other information along these lines which may be available.

## BOOKS

### Swanberg: Radiologic Maxims

RADIOLOGIC MAXIMS. By Harold Swanberg, B. Sc., M.D., F.A.C.P., Editor, *The Radiological Review*; Radiologist, Saint Mary's Hos-

# STOMATOLOGY

OFFICIAL ORGAN OF THE AMERICAN SOCIETY OF  
STOMATOLOGISTS

ASSOCIATE EDITOR: ALFRED J. ASGIS, Sc.B., M.A., D.D.S.

## Child Care, as Promoted by Pediatrician and Stomatologist

By Irene G. Woodcock, D.D.S., New York City  
President, New York Society of Stomatologists

**E**VERY doctor should view the human organism as a *Gestalt*, to see that the whole is not merely the sum of its parts. We, therefore, who are pediatricians and stomatologists, must no longer circumscribe our contributions to child care by rigid walls of too-narrow specialization. The objective of competent child care can best be promoted by broad rather than narrowed classifications.

There are four legitimate classifications in the field of child health: First, physical health; second, mental health; third, emotional health; and fourth, spiritual health. It is a moral, as well as a scientific, wrong for any one who would serve children to undertake specialization under any one of these classifications, without recognizing the related and interchangeable influence of each and all of the other three factors.

The physical body is no more the sum of its organs than is personality the sum of its traits. Both are the result of the organization of their component factors into a whole. A law of unity is operative. The human body has been given an electrical analogy. It is illustrated as possessing a dynamo. Through the circulatory and nervous system, that dynamo is attended by a circuit of wires, lights and motors, each of which is dependent for its existence upon the perpetuation of an unbroken circuit. This article purposes to concern itself with indicating certain points of contact inherent in the vast maze of the human net-

work that will interest, primarily, the pediatrician and those stomatologists who would serve children.

Childhood, today, is accepted by the practitioners of all specialties as presenting the age level at which the most satisfactory work may be accomplished. Youth and prevention are inseparable companions. As a result of this recognition, children have been barraged, during the past decade, by the enthusiasms of physicians, psychologists, educators and theologians. That most of these contributions have been valuable, is true. The difficulty is that the child, as the *unifying center* for all contributions, has been neglected. There is a need of appreciation for the *Gestalt* concept, on the part of those who would seek to assist children toward the fullest life, according to the day-by-day evolution in the meaning of that phrase.

### PEDIATRICIAN AND STOMATOLOGIST

Perhaps nowhere is greater opportunity offered for a unified approach than in the fields particular to the pediatrician and stomatologist. Regardless of what definitions, antique attitudes or inherited notions may have done to our conception of the limitation of one specialty or the other, when we meet a child patient, he is neither a medical problem nor a dental problem. He is a child, needing and having a right to understanding as a *whole*. Any doctor who has a right to diagnose for his child

patient should be able to diagnose his specialty in relation to the whole, or he should enrich his own ability through consultation with others.

Experience abounds with illustrations of contact points that should be developed between the pediatrician and stomatologist. In reviewing a few of the obvious ones, it is hoped that an incentive for research may be further stimulated, pointing to additional opportunities for cooperation.

We know that child care can be made immeasurably more effective by an early diagnosis of those specifically infectious diseases from which children are the chief sufferers. Early isolation of carriers is essential. The stomatologist may frequently be, in the course of his examination, the first to chance upon indications of potential trouble. For example, the age between the first and second dentition is the age of greatest liability to attacks from one of those infectious diseases—*whooping cough*. The stomatologist, recognizing the catarrhal stage of *whooping cough* and referring that suspect to a pediatrician, might gain the advantage of at least a week or ten days, for both the patient himself and for the social environment in which he lives.

Children brought to the stomatologist, either with a direct history of grinding the teeth or with a betrayal of that practice through evidence of attrition on the incisal or occlusal surfaces of the teeth, should be observed by the stomatologist for such other irritative symptoms of intestinal worms as restlessness, irritability, picking of the nose and twitching. If these are present, the services of a pediatrician are indicated, as well as local treatment of the dental organs.

If a child patient presents the typical white, scale-like, truncate spots, surrounded frequently by a red areola, on the buccal mucous membrane opposite the molar teeth, to what extent would the stomatologist be promoting child care if he did not recognize that condition as the early Koplik sign of measles? Furthermore, the stomatologist frequently has an early opportunity to see the furred tongue and hyperemic mucous membrane of the mouth and throat which characterize a "feverish cold"—and that patient can be sent early to the pediatrician, by which one more case of measles will come under control. The pediatrician, on the other hand, must watch that patient for the complications which only a stomat-

ologist should treat; i.e., the severe stomatitis which may follow the catarrhal form of measles. *Cancrum oris*, or gangrenous stomatitis, is recognized by Osler as a "terrible complication."

Röteln, with an incubation period of two weeks or more, is another disease, the symptoms of which a stomatologist must be consistently able to recognize, if he is to serve the child as a whole, rather than as a sum of parts. Every health agent should be able to detect possible symptoms of tuberculosis, and must do so, if valuable time is to be gained for the patient.

Among the constitutional diseases, the course of diabetes in children is more rapid than in adults. Even transitory evidence of glycosuria should indicate immediate attention from the pediatrician. So, when the stomatologist finds in his young patient a red, dry, glazed tongue, accompanied with scanty saliva, he should be temperamentally, as well as educationally, aware of the possibility of diabetes in that patient. Such an awareness establishes another contact point. Child welfare requires that that patient be benefited by both pediatrician and stomatologist, in the eradication of the whole constitutional disturbance.

Still another frequently encountered contact point is the constitutional evidence of hyper-nutrition and hypo-nutrition. In these malnutrition cases, early stomatologic care is just as essential as is general systemic correction. The presence of a faulty diet inevitably upsets the normal calcium metabolism. The result of such a disturbance upon the dental structure, is an early concern of the stomatologist.

A direct effect of chronic tonsillar hypertrophy is mouth breathing. The inter-relationship required by that professional contact point is evident, though unfortunately, in this instance, the stomatologist would seem more consistently alert to the demands of the whole situation than are many pediatricians. No orthodontic treatment could logically be attempted in the presence of hypertrophied tonsillar tissue. But it would seem that comparatively few children are afforded a dental check-up after a tonsillectomy.

#### MOTOR DISTURBANCES FROM DENTAL DISEASE

Another pathologic area in child development, wherein the stomatologist might be of greater service to the patient, is in cases



of motor disturbances from dental disease. It must be remembered that, not uncommonly, diseases of the dental pulp and pericemental disease are attended by such manifestations as twitching of muscles, varying from a slight affection of the occipitofrontalis or the orbicularis palpebrarum, to recurring spasm of the elevators and depressors of the lower lip.

Dental disease may bring about torticollis. Impactions or difficult eruptions induce a large percentage of blinking eyes; and pulp nodules have been shown to be directly responsible for tic douloureux. Another bond of consistent concern to both the pediatrician and stomatologist is recognition of the fact that infantile paralysis of a group of muscles or of a single muscle has occurred with dentition and disappeared afterward. Dentition may also induce strabismus.

#### PAIN, THE COMMON DENOMINATOR

The stomatologist, in common with other practitioners of the healing art, is frequently consulted because of pain suffered by his patient. Nature has recognized no legal, political nor educational differentiations, so the doctor specializing in the treatments of the mouth must take into account that some pain, seemingly of pericemental character, may be of congenital syphilitic origin, manifesting itself in the jaws.

Diseases of the brain or an abnormal condition of the lower bowel may give the patient a reflected pain in the jaw. Antral empyema is often a sequel of ordinary coryza.

With increasing emphasis, by educators as well as by physicians, upon the importance of early and adequate eye examination and adjustment, it is essential for both the stomatologist and pediatrician to remember the number of cases of orbital cellulitis and periostitis, for which oral sepsis is responsible. Cases of irido-cyclitis, neuro-retinitis, paralysis of the ocular muscles and even of panophthalmitis, have been observed clinically, in which a strong chain of evidence links these pathoses with septic dental tissues.

Another pathologic condition, often neglected in children because of lack of co-operation between the pediatrician and stomatologist, is acute or chronic lymphadenitis, in the submaxillary or upper cervical region. There are few cases of pronounced oral sepsis that do not manifest

themselves in chronically inflamed glands. That tubercle bacilli often invade such glands, is generally recognized. The point to remember is that it is just as possible for the tubercle bacilli to infect the glands through the mouth as through the blood stream. To make this contact point consistently operative for the best welfare of the child, we should remember one experiment of Dr. Kerker Halle. Prussian blue was painted on the pulp of living teeth in dogs. In three days the lymphatic glands likewise showed the presence of Prussian blue.

#### PREVENTION, THE ONLY CURE

Dental caries is essentially a disease of childhood. The implications of that statement must be carefully considered by the pediatrician. Too much emphasis is being placed upon the age of eruption of the sixth-year molar, as being the time to "go to the dentist." Nothing could be more contrary to the preventive ideal, for even in those cases where the pediatrician does carefully consider the dental organs in his dietetic prescriptions, we often find evidence of rampant caries.

In deciduous teeth, with their pulps so near the surface, the presence of decay soon means pulp involvement, with its long line of attendant ills. For example, the New York Society for the Prevention of Heart Disease has placed the responsibility for cardiac disease about equally between contagious diseases and focal infection; so a great contribution which the pediatrician may make to the welfare of his patients is to direct them, as early as two years of age, to a stomatologist. A campaign of prevention may then be inaugurated, which should purpose, by means of diet, prophylaxis, heliotherapy and, if necessary, reconstructive therapy, to maintain the deciduous dentition in a healthy condition. That being accomplished, many of the ills of the permanent dentition would be abolished.

We must not overlook certain very definite functions of the deciduous teeth. They, of course, incise and grind the food upon which a child is dependent for initial growth. But, also, those teeth contribute materially to the development of the alveolar process, and thereby to the development of the entire jaw. Facial harmony, esthetics and health are all dependent upon these much-neglected deciduous organs of mastication.

Permanent teeth erupt, larger in size and greater in number, the greater space they require being provided by the broadening of the dental arches. How can this be physiologically accomplished if the full complement of deciduous organs are not present, and in normal size and contour? Premature loss of a deciduous molar, for example, deprives the arch of the urge to growth and expansion in the region affected. This urge is stimulated by the wedging influence of the erupting posterior permanent molar, lacking which, the crippled lateral half of the arch will be shortened. If the other half of the arch goes on to normal growth, it takes no great imagination to picture the inevitable consequences. A shortened, deformed lower arch, a narrowed, protruded upper arch, with the muscular changes involved, is a picture that scarcely allows us to give anything short of adequate care to these "baby teeth."

The pediatrician might further materially aid his patients by educating parents in another phase of the importance of the deciduous dentition. Few parents realize that the permanent tooth is forming at the apex of the deciduous tooth. Any periodontal affection or alveolar abscess involving the temporary organ, inevitably establishes a purulent basin for the permanent tooth. Can diet or future prophylaxis counteract the effect of that condition on future growth?

#### HEALING

One other factor that both the pediatrician and stomatologist must take account of in treating children, is that physical disease reacts directly upon the emotional and social life of our young patients. The

fear complexes, the negativisms, the sense of social inferiority, that trace much of their incipency to physical disease, establish an area in child development that needs to be more generally appreciated and competently investigated. In a child patient we are meeting behavior patterns that are forming, flexing, adjusting. The experience that patient has with a doctor inevitably produces a stimulus that results in a certain reaction. Many doctors, who understand the osteoclastic and osteoblastic processes perfectly, carry with them into their practice only a very slight appreciation of how behavior patterns are fashioned. In healing, a doctor should take the whole welfare of the child into account. We must be particularly skilled in our understanding of the mental processes developing in children. In those children where fear of physical pain does not exist, we must be certain that nothing in our approach or in the environment is likely to condition them adversely. If fear exists prior to our introduction to the patient, it is incumbent upon us to resolve those direct fears and any concomitant fears, as a part of our healing profession. Moreover, our function is never fulfilled unless we aspire to inculcate into our young patients an appreciation of health and eagerness to possess it.

So it is that the field of child care undoubtedly offers the greatest opportunity, if interpreted in its complete sense, for social construction and reconstruction. The specialties of the pediatrician and the stomatologist, concerned essentially with the care of children, have much in common. For the ultimate good of the child, each specialty must possess a broad understanding of the work of the other.

133 East 58th St.

---

### When Should Pulpless Teeth be Removed?

In a study as to when and under what circumstances pulpless teeth should be removed, Dr H. R. Miller, of New York, in *New York St. J. M.*, July 1, 1932, points out that there are at least three chief considerations: First, there must be no important systemic contraindication, such as hemophilia, malignant disease, blood disease such as leukemia, etc., marked hypertension or diabetes; second, there should exist

a strong, plausible, causal relationship between the patient's general condition and any pulpless teeth he may have (many practitioners are still doubtful about this and only a small percentage of patients having their teeth removed under such a presumption are actually improved systemically); third, pulpless teeth may be removed when they are impugned to or, better, known to harbor bacteria or toxins capable of involving various structures in the body. There is a strong presumption that bacteria like hemolytic streptococci, often recovered from pulpless teeth, may infect special tissues.

---

# A LIVING FOR THE DOCTOR

## The General Practitioner as a Specialist

By Samuel J. Rose, M.D., Lexington, Ky.

**I**N medical school I was taught to refer to myself as a doctor as soon as my degree was given me. It said that I was a "Physician and Surgeon." I was capable, legally, to remove gall-stones, appendixes, brains or anything else that might strike my fancy. In reality, I found that there were comparatively few things that I could do. I could prescribe salts, calomel and the like with a fair degree of proficiency. I could also open boils, give a hypodermic injection of morphine, and could aid a woman in labor about as well as the local midwife.

In medical school I was taught, by inference at least, to believe that my school and my professors and my brand of medical teaching were the last word in the art of healing the sick. I was taught that all other brands of doctors and teachings were far inferior to mine, if not entirely worthless. With my teaching, it never dawned on me to give any other system the slightest recognition; and to investigate any methods other than my own was not to be considered for a moment. Briefly, I suppose I was a sort of satisfied cynic and egotist combined.

But with all of this knowledge, with which I was supposed to emerge from my Alma Mater, there was one particular thing that I was not taught. I was not given the slightest inkling as to how to make a living. In fact, my diploma misbranded me and, if I had had to pass inspection by a board like that controlling the Pure Food and Drug Act, I would have been turned back with the notation "misbranded," the reason being that I was not a "surgeon," and not even a very good "physician," as my diploma indicated.

Once my eyes were open as to the infinitesimally small amount of real medical or surgical knowledge I possessed, was there anything I could do about it? And, if I could succeed in making a fairly useful cog in a great profession, could I realize a reasonable return, in a pecuniary way, in exchange for my services to my patients?

Not being physically able to follow the beaten path of the crossroads doctor, with his necessary unlimited amount of physical stamina, and not having the "turn" of the general surgeon, I began to investigate physical therapy methods, which I hoped to be able to use in connection with my other medical qualifications. The result was very pleasing. Parenthetically, it is my belief that most of us struggle along for many years without having found out just what we are fitted for.

I can only briefly outline what a good physician, who employs physical therapy, using it as an adjunct to the practice of medicine, should be able to do and do well—and be paid for doing. I claim only to tell the patient my limitations, and accept only those patients that I can treat properly and to reject patients having conditions that I feel could be treated better in some other physician's office; also to aid the patient in finding the proper physician for his or her case, should this be necessary.

Let us take a patient, assume for him or her a few diseases, and try to treat the patient sensibly. We will start with hemorrhoids.

### HEMORRHOIDS

If the hemorrhoids are not large enough to protrude, one cubic centimeter of 5 percent quinine and urea hydrochloride

solution, injected into each pile mass through a Brinkerhoff speculum every fifth day, until from six to twelve injections have been given, will cure the condition. Nothing is needed except the speculum, a head-light, a cotton swab which has been dripped in Metaphen 2500, with which the area is painted before and after the injection. For severe pain, I prescribe half a dozen suppositories, each containing  $\frac{1}{4}$  grain (32 mgm.) of extract of hyoscyamus and  $\frac{3}{4}$  grain (48 mgm.) of powdered opium, to be used once a day, for pain, only if needed.

If the masses protrude, the patient should sit on a commode and strain until the hemorrhoids appear. Before they can recede, each is injected with one-percent procaine solution and then electrocoagulated before trimming it off with scissors. If there is any oozing, I apply Monsel's solution of iron. I insert an opium suppository into the rectum and prescribe, by mouth, 10 grains (0.65 Gm.) of aspirin (acetylsalicylic acid) and  $\frac{1}{2}$  grain (0.032 mgm.) of codeine, to be taken two or three times a day for the first three days, when needed. Locally, I prescribe 10-percent ichthyl ointment, retained with a kotex cloth, twice a day. For relief, other than the above, I have the patient take hot sitz baths for the first three days. No stitches are needed. After the first two days, 90 percent of these patients can go about their business, feeling much better than they did before treatment.

If a patient has a fistula, he is rejected, for that is purely an operative procedure, to be attended to in some hospital.

#### TONSILS

Moderate-sized tonsils are electrocoagulated. The technic for this is to use a topical application of 10-percent cocaine solution or inject 15 minims (1 cc.) of procaine solution between the pillars at the extreme top and bottom. About two-thirds of each tonsil is coagulated at the first sitting, and any remaining tissue removed at the next two sittings. Children are not accepted for coagulation. Eighty percent of cases are "retouched" from one to three times, to remove all residual tonsil tissue.

#### EXTERNAL MALIGNANT LESIONS

Seventy-five percent of all external malignant lesions are accepted for treatment and treated by electrocoagulation. If in doubt

as to whether or not all malignant tissue is destroyed, I apply an escharotic to the coagulated mass, for it deals microscopically with the tissue to be destroyed, while all other procedures we may use work macroscopically and, unfortunately, our eyes are not equipped with microscopes. The mass will separate in from six weeks to ninety days, leaving a clean, linear scar, in the majority of cases.

#### CHRONIC CONDITIONS

In chronic cases, the first thing is diagnosis. Each should have the routine urine examination, blood pressure reading and the various blood tests made, where indicated. All focal infections must be eliminated and, following this, the patient is given proper diets, elimination is attended to by suitable remedies and the necessary office treatments are instituted. These may include diathermy, galvanism, sinusoidal currents, ultraviolet rays, etc.

The patient with **menorrhagia** is given 30 or 40 milliamperes of a positive galvanic current, with a ball (copper) electrode, on which is placed a cotton covering wet with copper sulphate solution, the electrode being placed securely against the cervix, while the negative electrode is placed on the back. The time is thirty minutes. Three treatments usually suffice. Thirteen treatments are the most that I have ever given, in a case of a nonmalignant, bleeding fibroid, in a woman 48 years old. Internally, these cases are given pituitary-ovarian mixtures and viburnum. For the symptomatic backache, sinusoidal currents are applied over the sacrum for five minutes, the current being as strong as the patient will tolerate.

For the various **vaginal conditions**, it is impossible to go very far wrong with heat, properly applied. Diathermy is a most excellent agency, and the ingenuity of the physician will determine the practically endless number of good hook-ups he may invent, in order to obtain the most pleasing results.

For those who have done little of this work, two electrodes are all that should be used. One is a vaginal electrode and the indifferent one is a belt made of copper mesh or thin block tin, which is placed about the patient's waist, so that the current must travel from the vaginal tract up through the pelvis towards the belt about the waist. In doing so, it will in-

crease blood supply in every part of the pelvis. It has long been my opinion that a doctor would be doing good work if he, without asking his women patients a single question, would give each of them forty minutes of a 1,000 milliampere voltage of diathermy, as outlined above.

If a woman has an obstinate leukorrhea, I direct her to buy a rectal speculum with a rubber obturator, for inserting into the vagina, each night, a tampon saturated in 25 percent Argyrol (mild silver protein). Occasionally, I use a water-cooled lamp, attached to a conical quartz vaginal applicator, against the vaginal walls and cervix for 10 minutes. By such a line of treatment, it is surprising how many currettagages this type of patient will escape.

The man with a troublesome prostate is given treatment similar to that used for the pelvically incapacitated woman. The changes are not in the treatment, but in the use of proper applicators. Diathermy is given with the belt hook-up and a prostatic electrode; treatment from a water-cooled lamp is with a Plank pharyngeal quartz applicator, for which I never could find any other real use. Prostatic massages, within reason, are beneficial, and recently I have been using 1 cc. of anterior pituitary extract, as an injection under the skin, three times a week. There is no doubt that these injections are of value in these cases.

For the uncomfortable throbbing, I prescribe an opium suppository, to be inserted into the rectum twice or three times a week. Internally, pyridium is of value, but dizziness of a troublesome nature has been reported in many cases, which is harmless and will pass away in a short time.

Deafness cases are refused, since some one has stated that we know that the average man will fail in 98 percent of them; and I estimate myself as an "average man."

Nose ulcers are treated by electrodesiccation, coagulation, irradiation from a water-cooled quartz lamp, or cauterized with 50 percent silver nitrate solution.

Cervical erosions are coagulated through a vaginal speculum, without any anesthetic, since none is needed.

Urethral caruncles are coagulated under procaine anesthesia, using approximately 500 milliamperes of double-pole current.

By preceding the procaine injection with a topical application of 10-percent cocaine solution, the patient will be everlastingly grateful.

Intestinal cases are thoroughly lubricated by having them drink Wesson Oil, to the extent of a teacupful, once or more a day. The same preparation is prescribed by rectum, using an infant syringe in which is inserted a larger nozzle, to enable the oil to pass through it. Icthyol, in the form of Daytol capsules, is prescribed by mouth, the dose being two at bedtime and one before meals to soothe, if not heal, irritated areas in the intestinal tract that no physician can hope to find. Proper diet is, of course, prescribed for each patient.

Skin diseases, as far as the specializing general practitioners are concerned, are roughly divided into acute, chronic, parasitic and syphilitic.

The majority of acute conditions are treated with soothing preparations, such as boric acid ointment, black wash, combined with zinc oxide ointment, or calamine and zinc oxide ointment. The chronic case requires more drastic treatment, the principal external ointment to be used being ammoniated mercury. Both acute and chronic cases receive office treatments from a water-cooled, ultraviolet ray lamp or from an air-cooled lamp or both. Acne cases are irradiated, sufficiently to produce exfoliation. Pimples, pustules and nodules are destroyed by desiccation with an Oudin current.

Acne Rosacea cases are treated the same as acne cases, with the addition of treatment of compression with a water-cooled lamp, to the extent of producing a third-degree sunburn on areas that are stubborn.

All acute and chronic skin conditions except those that are parasitic, are treated constitutionally, for it is my opinion that intestinal disorders, toxic conditions and non-elimination play a large part in many of these cases. The internal remedies used consist of the oils, salines, desiccated ichthyol, one- to two-drop doses of tincture of iodine in a glass of water three times a day, soluble tin, in the form of Stannoxyol, for three months, iron, arsenic, etc.

Parasitic diseases of the skin are discussed by every textbook. Syphilis is treated the same as is done by any physician who treats these cases, with the arsphenamines, mercury, bismuth and the iodides, as indicated.



**In gastric and duodenal ulcers**, glycerine, containing 10 percent bismuth subnitrate, is often of value. The dose is a teaspoonful three times a day. Barium sulphate, in teaspoonful to tablespoonful doses, suspended in water, three times a day, taken over a period of three months, has given me gratifying results. Two ounces of sugar, dissolved in water and taken before meals, is often of value.

**Neosarsphenamine**, in 0.4 to 0.6 Gm. doses, once a week for five treatments, will often produce favorable results. In fact, I have been using neosarsphenamine since 1914, in many types of diseases other than syphilis, with pleasing results in 90 percent of all cases so treated. Given with the patient's stomach empty, there is nothing to fear, in my experience. In boils, carbuncles and the old toxic cases, where no focal infections are found to account for the disability, it does excellent work.

For **leg ulcers**, cleaning out the area by means of electrocoagulation gives good results. This may be followed by the application of a water-cooled lamp, for two to ten minutes, once a week, the applicator being placed in contact with the ulcer. Covering the ulcer with powdered permanganate of potassium is valuable, changing the dressing every three days. Valentine's beef juice, with equal parts of salt water, is also a valuable local remedy. Ulcers over the tibia, where the bone can be seen, will improve only in a hospital, after curettage.

Many **sinus cases** will escape surgical drainage by the proper application of heat from an infrared ray lamp, used along with or followed by a galvanic current. If the latter is used, the positive electrode should be placed over a wet pad, which should fit snugly over the offending sinus, and the negative electrode should be placed on the back of the neck. The dosage should be given to the toleration point, which will be about 5 to 10 milliamperes. The time is fifteen minutes. Diathermy, if used in these cases, should be applied with great care, especially if the current is passed through the brain.

This is an abbreviated outline, given in a rambling way, just as any physician might treat the patients who call on him. Regardless of the opinion the reader may be inclined to form concerning the statements I have made, I hope he will not arrive at any definite conclusion until he

has proven or disproven their value by trial.

#### FINANCIAL ARRANGEMENTS

It is highly important that the patient recover. It is just as important that the doctor make a living. A patient places no greater value on our efforts than we do. Therefore, I believe in talking plainly to each patient as to what I feel that I can or cannot do for him; also about the fee.

I charge hemorrhoid patients a definite fee for treating them until I am satisfied; and not until they are. They might be more easily pleased than I. My fee is \$75 to \$125, depending on what I find it necessary to do. If it is a simple case of internal piles and I can reasonably expect to cure the case with ten or twelve injections of five-percent quinine and urea hydrochloride, I charge \$75.00, of which \$50.00 is paid when treatment is begun, and the balance when I am satisfied. If there must be a misunderstanding, the time to have it is before, and not after, services are rendered.

Those that I accept for tonsil coagulation, I charge \$40.00 for the first treatment and \$10.00 for each retouching. The patients pay as they go, or else I have a clear understanding as to when and how they are to pay.

In external cancer cases, I charge nothing if the patients are poor and cannot pay; and those who can pay, from \$25.00 to \$1,000.00, according to their circumstances, also depending on what I have to do. The fee is paid as the patient and I agree at the beginning, and not after the work is finished. For removing moles, the charge is \$5.00 each, unless there are a great many of them, in which event I charge accordingly.

In the treatment of chronic cases, where no surgical procedures are used, I charge \$3.00 for each treatment, but give the patient the privilege of buying a course of treatments, in the form of a card. If he wishes to do this, he pays \$20.00 in advance, for eight treatments; otherwise, I send him a bill at the end of the month for the treatments, at the rate of \$3.00 each. Should he refuse to pay this bill, my services are discontinued and little if any effort is used to collect the bill. I do not believe in hounding or suing patients for doctor bills, for they make the worst sort of liabilities to any office. Instead, I give them the bill, make friends with them, and either collect in advance the next time

they have occasion to call on me, or more than make up for the loss by other patients they send.

Many who read this may wonder at a physician conducting his practice in such a fashion, by being bold enough to talk money the first time a patient visits his office. What would those physicians who feel that way think if they asked their tailor the price of a certain suit of clothes and he replied, "Now Doctor, do not let the price worry you for one moment. We will be reasonable with you on this merchandise?" The word "reasonable" may mean a different figure in the minds of the two persons involved. If he sent a bill for \$500.00, for a suit of clothes that you thought would be not more than \$75.00, you would probably feel toward that merchant just as many of your patients would feel toward you if you removed a \$75.00 appendix and sent a bill for \$500.00.

We have no more right to keep our patients in the dark as to the approximate, if not the exact, cost of the services we render them than the merchant or grocer has in not informing us what their com-

modities will cost us. As a profession, we are the only group of men who conduct our work in an unbusinesslike way. Possibly this is due to an age-old custom we feel must never be changed. Or it may be that some of us think that it would be putting a strain on our code of ethics. Call it by any name we may wish, whether "ethics," "custom" or simply a plain rut which we are in, it is my opinion that we must either make the needed changes in our dealings, by imitating if not actually becoming business men as well as physicians, or else have an indignant public make the changes for us.

If we try to excuse our childlike conduct and vacillating policies in our business dealings with our patients, by stating that it is beneath our dignity to discuss financial arrangements, our excuse is not founded on good logic nor fair play; and besides, there is only one correct way to practice medicine or anything else, and that is to follow the Golden Rule. How many of us are doing that?

124 East Main Street.

## NOTES AND ABSTRACTS

### Cheap Money

JOHN Smith was a farmer who raised wheat. Every year his fat acres yielded 1000 bushels and he always had money in his pocket.

But one year when wheat sold at \$2 a bushel, John felt rich and borrowed \$2,000 to buy an automobile. He wasn't afraid of a little debt like that, for one year's crop of wheat would pay it.

But next year there was a depression. All prices dropped, which means that the price of the dollar went up. Wheat fell to 50 cents a bushel.

"I am ruined," John wailed. "I'll have to pay back four times as much as I borrowed. When I borrowed that \$2,000, one year's crop of 1000 bushels would pay it back. Now it will take 4000 bushels—all I'll make in four years. The dollar has gone too high. If something isn't done to make money cheaper, I'll never get out of debt."

Other farmers who were in debt felt as

John did, and they sent wires to their Congressmen demanding cheaper money.

The Congressmen were willing to oblige in order to keep their jobs, and they passed the necessary laws to get results.

Now, as everybody knows, the way to cheapen anything is to make it abundant, whether it is wheat or advice or money. So the Government cheapened money by printing billions of paper dollars and using them to pay bonuses and current expenses.

Almost immediately the price of wheat went up. All prices went up, and everybody seemed to have money.

John took his 1000 bushels of wheat to the miller and chuckled with glee when he heard the price.

"Yes," said the miller, "we're paying \$2.50 a bushel—paper. Or 50 cents gold."

"I'll take the paper," said John, "I've got a debt to pay."

So he collected his \$2,500; paid his debt at the bank and walked out happily with 500 in his pocket. He felt rich again.

At the store where he always traded he stopped to buy a pair of shoes.

"The same old \$5 kind," he told the clerk.

"They're \$25 now," said the clerk, "in paper. Or \$5 in gold. Paper money isn't worth anything. I'm getting \$25 a week and it takes me all week to earn a pair of shoes. I wish you farmers had used your heads instead of ruining good money."

"We had to cheapen money," said John, "to get out of debt."

"Rats!" said the clerk. "You didn't want cheap money. You wanted an easy way to pay your debts. Why didn't you demand a law allowing you to settle at 25 cents on the dollar?"

"I reckon," said John, "we didn't have sense enough."—ROBERT QUILLEN, in *Fountain Inn Tribune*, Nov. 10, 1932.

### The Physicians' Wives' League

THE object of the Physicians' Wives' League is to render service, material, educational and spiritual, to the physician's family and to the members of the profession licensed to practice in New York State. As it stands alone in its limited field of activity, it has the obvious advantage of being original and not a mushroom organization, duplicating and overlapping the work of many kindred units.

Doing something new may attract attention, but does not justify the effort expended unless the original idea has something of value to offer besides being a novelty. The League has been doing very fine, constructive work in helping to alleviate the distress of others. New cases are coming in regularly, now more than ever, while one widow, sick and aged, will receive a pension for the rest of her life as a result of our interest.

The League has recently organized a Sons' and Daughters' League, for the purpose of fostering social relationships among the children of the members of the medical profession, and also to assist the Physicians' Wives' League in some of its work. For information write to Miss Anne Keller, 1749 Grand Concourse, Bronx, N. Y.

Physicians as a class are, by tradition, so much the givers that some of them cannot see themselves in the role of receivers of charity. The conditions of medical practice, like those of all other human activi-

ties, have undergone a decided change. With the development of medical centers and pay clinics, personal contact with patients is being lost, so that they are talking of "how good a clinic" this is, instead of how "good a doctor" he is. Under these circumstances, a physician is subject to the same ups and downs as any individual in our modern economic system.

The Physicians' Wives' League is an experiment, but it has rendered enough service to physicians and their families to compensate its members for their effort and inspire them with the hope that its work will be duplicated in many a large city, where, due to the number of practicing physicians, there undoubtedly are unfortunate persons, worthy of consideration and help.

LILYAN (Mrs. W. V.) GILBERT,  
Publicity Chairman

1690 Vyse Ave., Bronx, N. Y.

## BOOKS

### Beekman: Office Surgery

OFFICE SURGERY. By Fenwick Beekman, M.D., Attending Surgeon, Bellevue Hospital; Visiting Surgeon, Hospital for the Ruptured and Cripples; etc. *Everyday Practice Series*, Edited by Harlow Brooks, M.D. 94 Illustrations. Philadelphia and London: J. B. Lippincott Company. 1932. Price \$5.00.

This is one of the volumes of the *Everyday Practice Series* under the editorship of Dr. Harlow Brooks, planned to furnish usable, modern, authoritative monographs on topics of general interest to practicing physicians.

Every general practitioner is inevitably called upon, at least, for surgical diagnosis and for preliminary surgical treatments. All this type of work is well discussed in Dr. Beekman's volume on office surgery. Moreover, every doctor must be prepared to meet emergencies of all kinds and should know what should and should not be done, so that the patient's interests are fully conserved until his case is finally disposed of.

There are 16 chapters. The most important sections deal with wounds and other injuries (including fractures and dislocations), infections which call for immediate action, and certain classes of tumors, Surgical diseases of the abdomen, thorax and other deep-seated regions are omitted.

The book is one for the general practitioner.

Attention has previously been called to the beautiful binding and general bookwork when reviewing other volumes of this series. There is nothing like them in the field of medical book publishing, and the price is surprisingly low.

## THE • SEMINAR

[NOTE: Our readers are cordially invited to submit fully worked up problems to the Seminar and to take part in the discussion of any or all problems submitted.

Discussions should reach this office not later than the 1st of the month following the appearance of the problem.

Address all communications intended for this department to The Seminar, care CLINICAL MEDICINE AND SURGERY, North Chicago, Ill.]

### PROBLEM NO. 12—1932 (MEDICAL)

Presented by Dr. Philip Shapiro, Chicago

(See CLIN. MED. AND SURG.,  
Dec., 1932, p. 867)

**Recapitulation:** A middle-aged colored man complained that six weeks before admission to hospital he was seized with dyspnea and a sharp, girdle-like pain around his upper chest. A physician thought it was *tuberculosis* with girdle pains and gave him antisyphilitic treatment. Three days before admission his legs became paralyzed and he developed a cough.

**Examination** revealed slight cardiac hypertrophy, some dullness over both lung bases and crepitant rales throughout both lungs; neurologic examination was negative.

**Requirement:** Discuss diagnostic and prognostic possibilities.

DISCUSSION BY DR. F. F. SCHWARTZ,  
FAIRPORT HARBOR, OHIO

A patient showing these signs and symptoms demands a very thorough clinical and laboratory study, including a Wassermann test on the blood and spinal fluid, a complete blood study and neurologic examination and the use of fluoroscopy and roentgenography.

The possibility of aortic aneurism or dilatation, syphilitic aortitis or a mediastinal or esophageal growth must be considered.

An aneurism of the arch of the aorta seems to me to be the most probable diagnosis. The direction of such a growth is usually backward, and pressure on the trachea or left bronchus gives rise to dysp-

nea and cough. The pain is anginal in character and moderate cardiac hypertrophy soon ensues. Pressure erosion may account for the spinal involvement. The prognosis is usually grave.

AUTOPSY REPORT BY DR.  
R. H. JAFFÉ, CHICAGO\*

When the viscera of the chest were dissected away, the third, fifth and seventh right ribs were found to contain moderately firm, light pink-grey nodes, which were intimately connected with the bone and reached a greatest diameter of 3.5 cm. In the lower third of the sternum there was a similar node which measured 4 x 1.5 x 7 cm. in diameter.

The left pleural cavity was completely obliterated and the left lung felt very firm. A firm mass surrounded the left main bronchus and bulged deeply into the left lower lobe. This mass measured 35 x 90 x 60 mm. and was light pink-grey in color. The lumen of the bronchus was markedly stenosed.

Numerous nodules arranged about the bronchi were found throughout the lower lobe. The bronchi were moderately dilated. The lymph nodes at the hilus and about the trachea were swollen to walnut size and substituted by a soft, medullary, light-grey tissue. The right lung showed a marked compensatory emphysema. The heart weighed 375 grams. Its myocardium was pale and friable. Spleen and liver were congested and firmer than normal.

The kidneys were swollen and soft. The body of the tenth dorsal vertebra was dis-

\*Adapted from *Bul. Chicago Med. Soc.*, Apr. 18, 1931.

figured by a soft, medullary mass, which substituted most of the bony structure. The spinous process of the sixth dorsal vertebra was partly destroyed by a soft tissue which extended into the spinal canal and covered the external aspect of the dura mater for a distance of 36 x 6 x 6 mm. There were no gross changes of the spinal cord.

As so frequently occurs, in this case the carcinoma of the lung manifested itself chiefly by its metastases, which were found in numerous bones, in particular in the spinous process of the sixth dorsal vertebra. This metastasis had invaded the epidural space, covered the dura mater and slightly compressed the spinal cord.

The primary tumor originated from the main bronchus of the left lung.\* In addition to the metastases to the ribs, sternum and spine, tumor nodules were found in the left lower pulmonary lobe and in the tracheo-bronchial lymph nodes.

#### PROBLEM NO. 2 (MEDICAL)

SUBMITTED BY DR. HUGH D. STITES,  
ALEDO, ILLINOIS

A primipara of 33 years was delivered of a male infant in a perfectly normal labor of ten hours' duration. No instruments were used and there was no prolonged pressure of the child's head against

\*Geschickter states, in an article in this issue, that bronchiogenic cancer is usually diagnosed late or recognized at autopsy, and that no proved cures of the condition have yet been reported.—G. B. L.

the perineum and no lacerations. The baby weighed eight pounds two ounces, cried immediately after birth, had a good color and nursed well.

The condition of the mother and child progressed normally for five days, when the baby developed a temperature of 102°F., without any other signs or symptoms of abnormality. The fever subsided in a few hours.

The next day, the temperature rose to 104.5°F. and the infant was cyanotic, dyspneic and showed some muscular contractions, but no convulsions. The fever subsided in an hour and he went to sleep; but, four hours later, cyanosis again appeared and there was marked bulging of the anterior fontanelle. Spinal puncture released 7 cc. of markedly yellow fluid, but no free blood. The baby died soon after.

At autopsy, there was no free or clotted blood in the cranial cavity. The anterior three-fourths of both lobes of the brain were edematous and dark-red in color. The posterior quarter appeared normal and there was a distinct line of demarcation between the two areas. The brain substance was somewhat softer than usual.

Requirements: (1) Discuss the nature and suggest the cause of the conditions; (2) What, if anything, could have been done to save this baby, or can be done, in general, to prevent such occurrences?

---

### TESTING DRUGS UPON ANIMALS

Not only is experimentation upon animals necessary for the discovery of new drugs, but the laws of the United States require that every sample of certain important, well-known drugs must be tested on animals, in order to determine that it is strong enough to accomplish what is expected of it and safe enough to be used upon human beings. Thus the law requires that every batch of serum against diphtheria or tetanus, every vaccine, every sample of insulin for diabetes, every sample of digitalis or aconite for heart disease, must be tested upon animals, in the laboratory, before it is declared safe for use on patients.

Experiments upon animals have taught us the exact causes of many of the diseases that affect our health. It is by experiments upon animals that the remedies for these diseases have been found and made safe and effective; and it is only by experiments upon animals that the diseases, for which no specific remedies have yet been found, will probably be conquered in the future.—DR. A. D. HIRSCHFELDER, of Minneapolis, in *Am. J. Surg.*, Sept., 1932.



# CLINICAL · NOTES AND PRACTICAL · SUGGESTIONS

## Medico-Military Inactive Duty Training

**T**HE type of training such as was given at the Mayo Clinic at Rochester, Minnesota, in 1932, should be of particular interest to all Medical Reserve officers, including dental officers, as it combines both military and professional training. This course is open to officers from any Corps Area in the country, and, having had the pleasure of attending the courses in 1932, I recommend them highly to all officers who may be interested in doing the work this year.

The members of the staff of the Mayo Clinic have given these training periods much of their time, and have so arranged the courses that they give a medical or dental officer much opportunity to select for himself in his specialty, to which he devotes a half of each day. This work compares very favorably with the best postgraduate courses given anywhere in the country.

Another particular advantage is that the officer receives this work without cost to himself, whereas, were he in attendance at some postgraduate school, the cost would be high. At the Mayo Clinic there is always a vast abundance of clinical material for any of the specialties.

The military courses, given by Colonel George A. Skinner and his assistants, together with the instructors, who are reserve officers with the Mayo Foundation, are very thorough and represent every phase of work of the Medical Department organizations.

From my experience in having attended every one of the sessions, the lectures were

very thorough and, from the method in which they were presented, the lecturers must have spent considerable time in their preparation, showing the interest that these reserve officers, particularly those who are members of the staff at Rochester, have taken to make this training course a complete success.

An idea of what a reserve officer may obtain in the way of professional work at Rochester, I can briefly summarize in a few paragraphs:

1.—A comprehensive idea as to the manner in which patients are received, assorted, examined and referred to the various departments at the Mayo Clinic.

2.—An opportunity for those who are interested in seeing considerable experimental medicine being worked out at their experimental farms. Their experimental laboratories are very complete.

3.—Surgery, in all its departments, is the chief center of attraction for those who are interested in this particular branch of medicine. The other branches, such as general medicine and its allied subjects, command much interest also.

4.—The department of roentgenology is doing excellent work, and many of the reserve officers who took the training in 1932 are very enthusiastic regarding the work done in this department.

5.—Reserve officers are invited to attend all the staff and pathologic conferences, and one gathers much information by attending these important sessions.

The military part of the courses, with the exception of one or two demonstrations,

is carried on in the class room by lectures, and no Medical Department installation was omitted in these lectures. A trip to Fort Snelling is made toward the end of the course, where a whole day is spent on the solution of a command-post exercise and a short address is given on the proper functionings of the various medical department installations.

Reserve officers attending these courses are given credit of 100 hours and, although they receive no pay from the Government, the knowledge gained and the credit received is well worth the two weeks time, and I unhesitatingly recommend these courses to any reserve officers in the country who can find time, at his own expense, to attend them. The course completed October 30, 1932, had a total enrollment of 147 members, with representation from twenty-five states. These courses are given, as a rule, during October of each year, and any candidate desiring any information with reference to the 1933 courses should address Colonel George A. Skinner, Surgeon, Seventh Corps Area, Omaha, Nebraska, or Lieutenant Colonel Smith, in care of the Mayo Clinic, Rochester, Minnesota.

EUGENE J. CHESROW, M.D.  
Lt. Col. Med. Res.

Chicago, Ill.

### Finding Tuberculosis in Youth

TO be "tuberculosis conscious" is particularly necessary when examining youngsters in their late teens and early twenties. The dramatic rise of the tuberculosis death rate in the age period 15 to 25, contrasted with the low rate during early childhood, suggests that adolescence is, for many, the transition period; indeed the critical period for many who develop tuberculosis.

Most cases of adult-type tuberculosis represent a super-infection on previously infected soil. In the adolescent period the sleeping embers of tuberculosis seem to burst into flame within a relatively short time. Then it is that we should be unusually alert for any danger signs of developing tuberculosis. Nor should it be forgotten that certain types of tuberculosis progress rapidly, as for example the sub-apical type, in which the disease seems to develop acutely in the lung region im-

mediately below the clavicle. From that focus it may spread or gradually become chronic, and the suspicion of some is that the apical type, generally considered to represent very early pathologic involvement, is but the remains of a subapical, acute process. Other forms of acute development are the miliary and bronchopneumonic types.

### History and Physical Signs

Pulmonary tuberculosis may exist without any suggestion of ill health. While the history, at best, can be only suggestive, a careful history-taking is important. Underweight is no measure of the presence of tuberculosis, although rapid loss of weight is very suggestive. Of great significance is any suspicion that the patient has been in contact with a case of tuberculosis in the family, particularly if exposure has taken place during childhood. The constitutional symptoms such as fever, undue fatigue, rapid pulse, loss of weight and night sweats, draw one's attention to no special organ. Localizing symptoms such as cough, expectoration, hemoptysis or pleurisy, focus our attention on the lungs. Hemoptysis and pleurisy with effusion are strongly presumptive. If there is one typical symptom of tuberculosis it is fatigability. The more obscure the fatigability is, the greater is the suspicion that tuberculosis is its cause.

Skill in interpreting physical signs of tuberculous lesions in the lungs depends on an understanding of the pathologic mechanism. The variations are too many to discuss here. One general principle is that râles in the upper segments of the lungs warrant the presumption of pulmonary disease, probably tuberculosis. The nature of the râles—whether fine, crepitant, or moist—makes little difference. Any râle that persists after the patient coughs should excite the suspicion that tuberculosis is present. To elicit râles the patient is instructed to cough slightly at the end of each expiration. Râles, if present, will be heard immediately after the cough and perhaps at the beginning of the next inspiration. The time has passed when we wait for the finding of tubercle bacilli before venturing a diagnosis. The sputum should be examined repeatedly, but a negative finding in no wise excludes the presence of early tuberculosis.

In all instances in which the chest examination reveals abnormal signs, a radiograph should be made. In patients with suggestive symptoms and negative physical signs, a radiograph should also be made, for some early lesions can be discovered only in this way.

Should the tuberculin test be included? Early statistics created the impression that all adults and nearly all children reacted positively to the test. For that reason the value of the test was unwarrantedly discounted. Later observations have shown that infection is by no means so widespread. A positive reaction in an adult is of scant significance, but a negative reaction speaks volumes; it almost certainly excludes tuberculosis.—*The Health Examiner*, April, 1932.

#### Female Sex Hormone in Epistaxis

A YOUNG man of 18 years consulted me on May 4, 1932, complaining of frequent attacks of epistaxis during the past few years. On the slightest sneezing or the inhalation of irritants, the nose would begin to bleed. Compression and the application of ice occasionally gave transitory relief. Several patent medicines had been tried, without success. The family history was negative.

Physical examination revealed a healthy young male, with a good color. The eyes reacted to light and accommodation. The ears, mouth, heart, lungs, abdomen and nervous system were normal. The nose showed pin-point areas of erythema on the right septal wall; no new growths. The blood pressure was 120/80 mm. of Hg.; pulse, 78; temperature, 98.6°F. Blood study showed 5,000,000 erythrocytes; 8,000 leukocytes; hemoglobin, 85 percent (Talquist).

The patient was given calcium lactate, 10 grains (0.65 Gm.) three times a day, by mouth, with Adrephine (adrenalin and ephedrine) solution locally.

On May 6, the patient returned with a recurrent hemorrhage, and trichloroacetic acid was used on the bleeding points.

On May 25 there was a severe hemorrhage, and the caustic was again applied.

On the basis of Birch's reports on the success of the female sex hormone in hemophilia, I decided to try this method, and injected the contents of an ampule of Progynon (1 cc.) on May 25 and 28 and

June 3, 5, 7, 9 and 15, giving the tablets of the same preparation, by mouth, three times a day, along with the injections, and continuing until July 1.

While I cannot explain the action of this substance, there have been no attacks of epistaxis from that time to this (Dec. 12, 1932).

F. F. SCHWARTZ, M.D.,  
Fairport Harbor, Ohio.

#### Vitamin A\*

OUR knowledge of deficiency disease is growing rapidly, but it is still relatively very limited. So far, it seems probable that most of them are due to a lack of combined vitamins, rather than of a single one. There are, however, certain conditions rather definitely associated with a lack of vitamin A.

The classic symptom of lack of this vitamin is xerophthalmia, or dryness (perhaps keratinization) of the conjunctiva. We now recognize that this condition probably extends to other mucous membranes, such as those of the respiratory tract and the vagina.

It is, therefore, important that an adequate supply of vitamin A be assured to patients with all types of eye diseases. It is also beneficial in certain types of sterility, where keratinization of the vaginal mucous membrane is a factor.

Vitamin A is relatively abundant in all green plants and in yellow vegetables (in the form of the provitamin, carotene), in egg yolk and in naturally yellow cream and butter (also, in largest amount, in fish-liver oils, especially that from the halibut—Ed.), and these articles should be regularly included in a well balanced diet.

JOHN H. MUSSER, M.D., F.A.C.P.,  
New Orleans, La.

#### Chloretone in Whooping Cough

IT is not generally known that there is a simple and effective remedy for whooping cough, by which the average case may be relieved in from seven to ten days.

Vaccines have not proven satisfactory, although a number of investigators feel that they lessen the severity and shorten the course of the disease. Intramuscular in-

\*Partial abstract (by G. B. L.) of a clinical lecture before the A.M.A. at Philadelphia, June 9, 1931. (Italics by Editor.)

jections of ether may be beneficial, but the children, personally, do not approve of this method of treatment.

Chloretone, in small doses, will clear up whooping cough much more rapidly than either vaccine or ether. For children of three years, the dose is one grain, four times a day.

Chloretone is not soluble in water, but is freely soluble in alcohol. Dissolve the chloretone in alcohol, and add syrup to flavor. Chloretone has a camphoraceous taste that is difficult to disguise.

The usual prescription for three years is:

R	Chloretone .....	gr. xxxii	2.0
	Alcohol .....	$\frac{3}{4}$ vi	24.0
	Syr. Aurantii .....	$\frac{3}{4}$ i	32.0
	Aq. Dest. q.s. ad	$\frac{3}{4}$ iv	120.0
	M. ft. mist.		

Sig.: Teaspoonful four times daily.

By making a gallon of the prescription, on a basis of one ounce of chloretone to the gallon, the dose can be graduated from a half-teaspoonful four times daily, for infants, to three teaspoonfuls four times daily, for children of ten years.

R. S. MACARTHUR, M.D.,  
Los Angeles, Cal.

I have been a reader of CLINICAL MEDICINE AND SURGERY for three years and assure you that I enjoy it more than any other magazine that I receive.—J. P. T., M.D., Ga.

### Specific Gravity of Urine\*

THE specific gravity of urine is measured with sufficient accuracy for clinical purposes by means of the ordinary urinometer and cylinder. It is important (1) that the float rest in the urine without touching the sides of the cylinder and (2) that the reading be taken from the bottom of the meniscus.

The determination of the specific gravity of urine is a quantitative test and can therefore be applied only to specimens collected over a definite metabolic period. To take the specific gravity of a random specimen is a waste of time; to make deductions from such a reading is to invite error.

Reliance can be placed upon the specific gravity reading obtained from a four-hour specimen after a standard meal. The diet

can be altered to suit individual requirements, the essential factors being a standardization of conditions and a knowledge of how these conditions affect the specimen.

**Significance.** The specific gravity of the urine of normal individuals varies between 1015 to 1030. Physiologically it is influenced by the same factors as the volume and it tends to vary in inverse ratio to the total quantity. Polyuria, whether physiologic or abnormal, usually gives a urine of low specific gravity; oliguric urine usually has a high gravity. Diabetes mellitus, in which condition a large amount of urine of high specific gravity is passed, furnishes an important exception to this generalization.

### Abnormal Causes of Deviations in Specific Gravity

#### High Sp. Gr.

- 1.—Diabetes mellitus.
- 2.—Febrile states.
- 3.—Following loss of fluid.
- 4.—Nephrosis.
- 5.—Acute glomerular nephritis.
- 6.—Cardiac decompensation.

#### Low Sp. Gr.

- 1.—Diabetes insipidus.
- 2.—Chills.
- 3.—Reduction of anasarca and convalescence from febrile diseases.
- 4.—Chronic glomerular nephritis.
- 5.—Sometimes in epilepsy, hysteria and chorea.

In the study of the nephropathies, the determination of renal variability is of great importance. For this purpose, it is customary to collect the day urine in six two-hour specimens and the night urine in one twelve-hour specimen. Normally, the maximum variation in specific gravity should be not less than 10 points. A concentrated diet, or 20 Gm. of sodium chloride may be given, in suitable cases, to investigate the power of the kidneys to concentrate the urine. A fixed low specific gravity, obtained after such measures as outlined above, is highly characteristic of chronic glomerular nephritis.

HENRY M. FEINBLATT, M.D., and  
ARNOLD H. EGGERTH, A.B., A.M.

CLINICAL MEDICINE AND SURGERY is always good, one of the most readable and useful of all the publications.—J. S. L., M.D., Texas.

\*Abstracted from "Clinical Laboratory Medicine," published by Wm. Wood & Co.

### Shoe Width and Foot Comfort

A NUMBER of years ago I made the clinical observation that foot comfort and foot efficiency depend, in great measure, upon a proper relation between the treading surface of the foot and the size of the sole of the shoe commonly worn. A shoe with a too-narrow sole, particularly if too narrow across the ball of the foot, is sure to cause callouses and often also corns. At that time I had never seen this point brought out in any textbook on orthopedics or any journal article, and consequently thought it was an original observation. Even in more recent years I have seen this point mentioned only a few times and really emphasized once. I was, consequently, considerably surprised when my shoemaker called my attention to the following article by Dr. Dio Lewis, in the September, 1871, number of Wood's Household Magazine, a lay family publication:

"Within three blocks of my Boston residence, there are eleven corn doctors. Some of them employ a number of operators and do an immense business. A large majority of adults, among the better classes, suffer from corns or other maladies of the feet. Walking, the best of all exercises, would be indefinitely increased if our feet were healthy.

"Prompted by sufferings in my own person and by sympathy with the sore-footed cripples about me, I have studied this subject of the feet with much care and interest.

"Let me give you the result of my observation and thought: *The sole is too narrow!* It has long been suspected that a narrow sole was the great trouble in this world. The particular suffering under consideration, I am sure, all, or nearly all, comes from a too-narrow sole.

"My friend Mrs. C., on reading the chapter in 'Our Girls,' devoted to 'Boots and Shoes,' came to say that, although she was a great sufferer from corns and a general sore and crippled condition of feet, her shoes were, nevertheless, enormous—twice as large as her feet. She wished I would see if it was not so. I examined the shoes and agreed with her that they were too large. As she stepped, it was doubtless true, as she said, that her foot rocked over first on this side and then on that: Now it pressed over on the outside, rubbing down over the edge of the sole and touching the ground, and perhaps, if the ground was at all uneven, on the very next step, her foot would rock over on the other side of the sole. Such friction of the little toe and the big toe joints against the upper leather must inevitably produce corns.

"Mrs. C. wished me to accompany her to the shoemaker's and see what I could do for her relief, for really life was becoming a torture. We went to her own shoemaker. Mrs. C. hobbled to a seat and declared, 'I won't try to walk again! There!'

"Her shoe was removed, and the shoemaker marked around her foot, while she was standing upon it. We measured the mark and found that it was exactly four inches wide. That was the width of her foot, when she stepped on it without a shoe. Then we measured the sole of the shoe she had been wearing, and found it two and a half inches wide. Here was the secret of the whole trouble!

"A pair of shoes was made for her at once, with soles four inches broad, and now she can walk for hours without a pain in her feet.

"There are millions of poor sufferers in the country, who are limping and hobbling through the world, who might be perfectly relieved and cured by the same means."

If our orthopedic textbooks would devote more space to the more common and vitally important problems and less to theory and non-essentials, general practitioners, particularly the younger members of the profession, could render much better service to their patients.

EDWARD H. OCHSNER, M.D.,  
Chicago, Ill.

### Vitamin G (B<sub>2</sub>)\*

VITAMIN G is now being divided into several types and is variously known as vitamin P, P<sub>2</sub>, B<sub>2</sub>, and perhaps by some other names. Its lack is believed to be one of the factors in causing pellagra.

Deficiency of this vitamin, in the diet of rats, leads to dermatitis, with falling of the hair on the tail and around the eyes, nose and mouth and matting of the body hair. Resistance is lowered and ulcers may develop, which heal when vitamin G (B<sub>2</sub>) is added to the diet.

The symptoms of deficiency of vitamin G develop slowly, and for that reason some people are skeptical about it. If small quantities of this vitamin are given, the animal lives, but becomes senile prematurely.

These facts have led some to the entirely erroneous conclusion that vitamin G is a specific for senility and falling hair. Its deficiency is, however, probably one of the factors in premature senility.

To obtain the best results from vitamin G (B<sub>2</sub>) feeding, the diet must also contain sufficient calcium and vitamin D.

HENRY C. SHERMAN, Ph.D.,  
Mitchell Professor of  
Chemistry, Columbia Univ.,  
New York City.

\*Partial abstract (by G. B. L.) of a lantern demonstration before the A.M.A. at Philadelphia, June 11, 1931.



## THE · LEISURE · HOUR

### Mrs. Dugan's Discovery (As Related at a Dinner by Ellis Parker Butler)

"WAN day whin I was after rum-magin' in me cellar Oi found wan dozen Champagne bottles goin' t' waste, and t'was a pity t' see thim go t' waste. Oi tuck a look at thim and Oi seen they was all in good condition, excipt they was full of champagne-wather. Puttin' the twilve bottles t' wan soide Oi procured a cork screw and by houldin' the bottles toight betwane my knees—which Oi had covered wid rosin t' prevent th' bottle slippin'—Oi drew out the cork.

"Oi laid th' cork t' wan soide an' emptied th' contints av th' bottle down th' drain, except wan small tumblerful, which Oi drank.

"Oi thin removed th' cork from another bottle, an' emptied th' contints down th' drain, excipt a small tumblerful, which Oi drank.

"Oi thin removed th' cork from another bottle, an' emptied th' contints down th' drain, excipt a small tumblerful, which Oi drank.

"Oi thin removed another bottle from th' cork and emptied th' drain down th' contints, excipt a small tumblerful, which Oi drank.

"Oi thin removed another drain from th' contints—and emptied th' small cork down th' tumblerful, excipt a bottle, which Oi drank.

"Oi thin bottled another small remove—from the thumbler—excipt a small corkful—which Oi drained—and continsed th' drink down th' bottle.

"Oi thin tankled a bump from 'nother

bottle an' Oi mean Oi dunkled a tump from 'nother copple—you see, me friend, Oi mean Oi drankled a kump—Oi mean Oi cackled a—Oi mean Oi conkled—Oi—Oi—well, anyhow, Oi did it t' all thim twilve bottles.

"Thim bottles was now all impty, an' Oi steadied th' house wid wan hand an' counted th' bottles wid th' other.

"There was twinty-siven left out av th' dozen. Thin Oi got me scrubbin' brush an' a pail of wather to clane th' bottles, but t' my surprise Oi found Oi cu'd not git th' brush into th' nick av the bottles. Oi therefore turned th' twinty-siven bottles wrong soide out, an' scrubbed thim well, an' turned thim roight soide out again.

"By this time th' house was revolvin' rapid, an' Oi sot on th' floor an' counted th' bottles as they wint by. They was sixty-four av thim. Oi clum t' th' kitchen table an' produced out av th' drawer th' can opener, on th' hind legs av which was a glass cutter. Oi crept back carefully t' th' bottles an' seated mesilf, in th' cinter av thim, an' thim goin' round me continuous. By pretending indifference t' thim an' springin' at thim, whin they was off their guard, Oi was able t' catch thim wan at a toime. Whin Oi had thus caught a bottle Oi hild it firmly down—by layin' on it—an' wid th' glass cutter Oi cut off th' bottom an' th' neck av it. These Oi put t' wan soide, an' what remained av th' bottles made an excellant chimney. When I counted thim Oi found Oi had sivinty-two."—*Ideal Power*, Oct., 1907.

### Taking the Count

There had been an epidemic of influenza in the town, and one physician who had had scarcely any sleep for a week called upon a patient who was suffering from pneumonia.

"Begin counting," directed the doctor as he leaned over to hear the patient's respiration.

The doctor was so fatigued that he fell asleep, with his head on the sick man's chest. It seemed but a minute when he suddenly awoke to hear the patient still counting:

"Ten thousand and twenty-six, ten thousand and twenty-seven —"

### Civic Education

A filling station proprietor in Tennessee, where the tax on a gallon of gasoline is 8 cents, has found a novel and effective way of vitalizing the price. A sign over his station presents the following expert study in the origin and incidence of taxation:

Governor Horton .....	7 cents
Hoover .....	1 cent
Gas .....	6 cents
Freight .....	3 cents
Distribution .....	4 cents
Me .....	2 cents

— 23 cents

—*New York Times.*

"Compensation" is payment for an injury in service; "disability allowance" is the \$12 a month paid to pacify a veteran who is making a fuss. — *Fountain Inn Tribune.*

### The Queen Can Take Care of Herself

A member of the faculty in a London medical college was appointed an honorary physician to the King. He proudly wrote a notice on the blackboard in his classroom:

"Professor Jennings informs his students that he has been appointed honorary physician to His Majesty, King George."

When the professor returned to his classroom in the afternoon he found written below his notice this line: "God save the King."

### The Good Book Says

An old woman's son was seriously ill and the attending surgeon advised an operation. But the mother bitterly objected.

"I don't believe in operations," she exclaimed. "Even the Scriptures is agin it. Don't the Bible say plain and flat: 'What God hath j'ined together let not man put asunder?'"

### One Frost-Bitten Kidney

"Do you mean to say that you sleep out of doors all winter in the most severe weather? Don't you get frightfully cold?" asked the guest.

"Cold!" repeated the back-to-nature enthusiast. "Cold! Why, when the doctor took out my appendix last February it was chapped."

### Envious Diners

A traveler, dining at Crewe,  
Found quite a large mouse in his stew.

Said the waiter: "Don't shout  
And wave it about,  
Or the rest will be wanting one, too!"  
—"The Line," *Chicago Tribune.*

### Rigid Specialization

New Hospital Patient: "Say, doctor, I asked that nurse to put a hot water bottle at my feet and she stuck up her nose and walked away."

Doctor: "What else could you expect? That was the head nurse."

Patient: "O, do they specialize that much? Then get me the foot nurse." — *Capper's Weekly.*

### Wise Surgeon

A patient in a hospital awoke after an operation and found the blinds of the room drawn.

"Why are those blinds down, doctor?" he asked.

"Well," said the physician, "there's a fire burning across the alley, and I didn't want you to wake up and think the operation had been a failure." — *Patchwork.*

It must discourage the doctor a wee bit, though, when he sees his charity patients buying gasoline. — *ROBT. QUILLEN.*

## DIAGNOSTIC · POINTERS

### Hypothyroidism

In my experience, minor degrees of hypothyroidism are very common and the condition is often missed because it causes a very vague, ill-defined condition of ill-health, which is frequently unnoted by the patients as any real departure from the normal, more especially as its onset is very insidious. The patients resign themselves to being "not so young as they were" because they feel sluggish, mentally and physically, their keenness for their favorite amusements is not what it was . . . One grain of thyroid extract once a day is usually all that is required for most cases.—DR. H. C. BARLOW, in *Practitioner*, Lond., Dec., 1931.

### Creatinin in the Urine as an Index of Basal Metabolism

The measurement of creatinin in the 24-hour's urine by the colorimetric method is a quick method of estimating the basal metabolic rate.

The creatinin test shows normally about 1400 milligrams of creatinin to 100 grams of urine; 300 milligrams corresponds to a plus 90 percent metabolic rate; 500 mgm. to plus 60 percent; 700 mgm. to plus 30 percent; and so on, the B.M. rate diminishing as the creatinin increases.

If the thyroid gland has received x-ray or radium irradiation, the creatinin test is not reliable.—DR. M. GUHR, of Czechoslovakia, in *West. J. Surg., Obst. & Gynec.*, Dec., 1931.

### Neurogenic Factor in Chronic Peptic Ulcer

I wish to emphasize that the ulcer-bearing individual belongs to a distinct type and from birth is predisposed to the development of chronic peptic ulcer. This

type is the high-strung, emotional, so-called vagotonic individual, with a sensitive nervous system and certain physical peculiarities which clearly distinguish him from the sympatheticotonic type . . . The mystery connected with the origin and behavior of chronic peptic ulcer is in some way connected with the patient's nervous organization and his physical make-up.—DR. W. B. RUSS, of San Antonio, Texas, in *J.A.M.A.*, Nov. 28, 1931.

### Allergic Epilepsy

A case of allergic epilepsy is reported in a child of 3 years who reacted with epileptiform seizures whenever cheese was eaten and was free when this food was avoided.—DR. S. J. LEVIN, of Detroit, in *J.A.M.A.*, Nov. 28, 1931.

### Biochemical Study of Sinus Disease

In a series of 33 cases with a positive diagnosis of sinus disease, in which chemical analysis of the blood was done, 18 showed an increase of blood calcium above the established high normal. In only 1 patient with a positive sinus disease was the serum calcium below the average minimum normal. Many of these cases showed a high calcium phosphorus ratio in the bone.—DRS. S. ISRAEL and H. O. NICHOLAS, of Houston, Tex., in *J.A.M.A.*, Nov. 14, 1931.

### Uterine Bleeding

In uterine bleeding in young girls (12 to 15 years), think of teratoma or hypernephroma, associated with precociousness; or possibly of malignant disease of the uterus, in spite of the patient's youth.

Uterine hemorrhage in young girls is almost always constitutional and of endocrine origin. Try medical treatment first.

If it fails, give small doses of radium (200 to 250 milligram-hours).—DR. P. BROOKE BLAND, Philadelphia, Pa.

---

### Hemothorax

In hemothorax, the absorption of the blood may cause a fever up to 103°F. This should be remembered when the presence of infection is being considered.—DR. FRANK K. BOLAND, Atlanta, Ga.

---

### Mediastinal Tumors

The most common symptoms of mediastinal tumors are: pain, dyspnea on exertion, difficulty in swallowing and bulging of the chest wall. Early diagnosis is important, as most, if not all, of such tumors are potentially malignant and should be removed as early as possible.—DR. STUART W. HARRINGTON, Mayo Clinic, Rochester, Minn.

---

### Pneumonia and Heart Disease

Few parents and astonishingly few physicians seem to realize the need for prolonged convalescence after severe acute infections. This seems to be particularly true with pneumonia. In four years' experience with a children's heart clinic, the author found that the largest number of functional heart disturbances followed pneumonia. It behooves us then to see to it that the heart action is normal and that gradually increasing activity produces no abnormal symptoms or signs, before we allow these children unlimited activity or pronounce them completely recovered. It is equally true that children with chronic infections seldom receive any consideration for their hearts.—DR. A. H. WASHBURN, in *Colorado Med.*, Aug., 1931.

---

### Obesity

There is no specific metabolic abnormality in obesity. All obesity is "simple obesity." The increase in weight merely represents an inflow of energy greater than the outflow. Failure of the primitive instinct to adjust the inflow of energy to the bodily needs is always the immediate cause of both leanness and obesity.—DR. L. H. NEWBURGH, of Ann Arbor, Mich, in *J.A.M.A.*, Dec. 5, 1931.

### Impending Intrauterine Death

Impending intrauterine death may be detected in a small number of cases, mostly diabetic, nephritic or toxemic patients, as well as the 8-month habitual miscarrier. The possibility of detection depends upon intelligent prenatal care, more frequent office visits and hospitalization in certain cases after the period of viability. Non-growth or shrinkage of the uterus and the presence of a decrease or no increase in weight are the significant signs which point to impending intrauterine death. On the first suggestion of these signs after the seventh month, if the fetal heart beat is still present, the woman should be hospitalized and labor induced.—DR. R. S. TITUS, of Boston, in *Am. J. Obstet. & Gynec.*, Sept., 1931.

---

### Abdominal Disease

Persistent abdominal pain, followed by nausea, vomiting and difficulty in moving the bowels, is almost invariably surgical; while nausea, vomiting, perhaps diarrhea, headache, malaise and chills, followed by abdominal pain, is almost always medical.—DR. J. B. HELMS, of Morgantown, N. C., in *Southern M. & S.*, Oct., 1931.

---

Each number of CLINICAL MEDICINE AND SURGERY is a textbook in itself, written so that the average practitioner can learn a number of things to apply to his daily practice. It is worth many times the small amount charged for it.—H. R. H., M.D., Ind.

---

### Recurrent Affective States

A patient suffering from a recurrent affective condition (moods, depressions, hypochondriasis) feels well at night, but is engulfed in the morning. The psychic mechanics are out of balance. If the symptoms can be explained on a physical basis, the case is probably benign and self-limited.—DR. L. B. HOLMAN, Baltimore, Md.

---

### Aortic Murmurs

A systolic murmur, at the aortic valve of a young person, is suggestive of syphilis.—DR. EMMET KEATING, Chicago.

## Current · Medical · Literature

### Treatment of Varicose Ulcers

A treatment of varicose ulcers which has been found successful in hundreds of cases during the past thirty years is described as follows by Dr. T. E. Vail, of Thompsonville, Conn., in *M. J. & Record*, Mar. 16, 1932.

The first dressing should be made in the morning before the patient rises, for at that time the swelling is the least. Cleanse the surface carefully with hydrogen peroxide. Dry by patting with sterile gauze. Dust the ulcerated areas with thymol iodide. Apply one-half inch strips of adhesive plaster one eighth inch apart, starting at 1, as shown in Fig. 1, and ending at 2, if working down from the ankle; and starting at 5 and ending at 6, if working up. These adhesive strips must be applied directly over the ulcers, with firm pressure and using enough to extend well beyond the inflamed area. I frequently strap a leg entirely from the foot to knee. A two-inch, ten-yard bandage is then applied, starting just below the knee, and fastened to the skin by a plaster about two inches long by one inch wide. The leg is then bandaged, using firm pressure, reversing as the case arises, and ending about the arch of the foot, Fig. 2:

After a day or two, the patient no longer suffers pain. The bandage should be cut off and changed only when it is considerably soiled from discharge. The average days of dressing

are third, sixth, tenth, seventeenth and weekly thereafter. The plasters should be changed only when loose. Ulcers are generally healed in five or six weeks. A properly fitting elastic stocking must then be worn and, later, the injection treatment of the veins must be carried out.

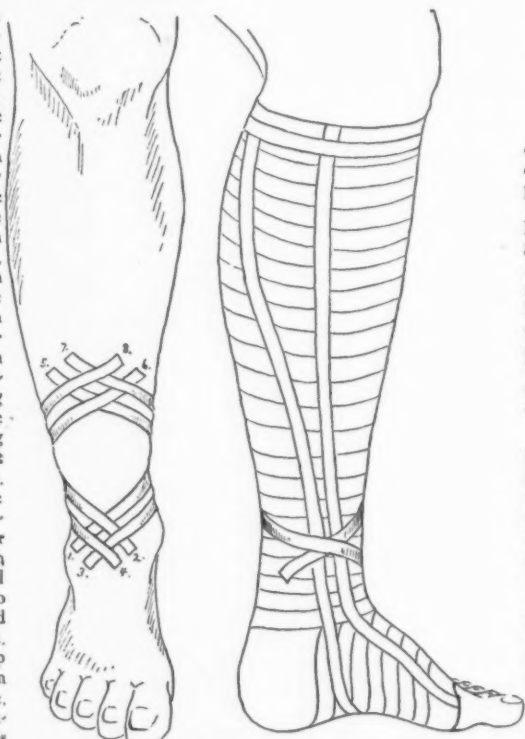


Fig. 1, left; Fig. 2, right.

### Injection Treatment of Varicose Veins

Commenting upon some special case which he reports, Dr. A. P. Stoner, of Des Moines, in *Am. J. Surg.*, June, 1932, remarks that the injection treatment has superseded all other measures and it is considered to be one of the safest of all surgical procedures.

The danger of embolism, however, is undoubtedly underestimated and is to be reckoned with. This accident should be reduced to a minimum by a familiarity with the conditions underlying the disease processes, including the etiology and pathology, and one should be prepared to carry out and interpret all the necessary tests es-

sential to proper selection of cases.

There is no one ideal solution in use that is always effective or fool-proof. Should a slough result, the author prefers to treat it conservatively, bringing the walls together with adhesive strips after the separation of the necrotic core. Radical excision of the slough should be done only in a hospital operating room.



A complete physical examination of the patient and careful preparation of the limb is essential before any injection is attempted. At the present time, however, we know of no infallible means of preventing certain serious reactions and even grave disasters that occasionally follow the treatment.

Recanalization of injected veins may occur and varicosities may develop from apparently normal veins after injection and will require treatment. All patients, therefore, should be kept under observation for a year or longer.

### Chronic Vitamin B Deficiency

In *M. J. & Record*, Mar. 2, 1932, Dr. H. E. Marks, of New York, reports that a group of 67 patients suffering from chronic constipation, colitis, asthenia and malnutrition, were subjected to supplementing of the ordinary diet by cereal germ (vitamin B), for periods from a few weeks to three years.

The chief responses obtained to the administration of the germ consisted in improvement in general strength, vigor and endurance, improvement in bowel function, improvement in nutrition and improvement in such symptoms as indigestion, gas, nausea, headache, abdominal pain, skin eruptions, and other manifestations of gastrointestinal malfunction.

The author concludes that these patients were suffering from vitamin B deficiency, as manifested by the corrective effect of the cereal germ (vitamin B).

### Electrocoagulation of Hemorrhoids

In *Brit. J. Physic. Med.*, June, 1932, Dr. W. Bierman, of New York, asserts that the treatment of hemorrhoids by electrocoagulation (surgical diathermy) has become extended because of the satisfactory results obtained in the hands of many responsible operators.

Twenty-five (25) physicians, who have been using this method from 6 months to 10 years, in 3,284 cases, have stated almost unanimously that the final results were good when the proper technic was employed. Scar tissue following electrocoagulation is well known to be very pliable. Very little postoperative pain and discomfort were reported, and when present do not usually last more than 5 days. Such pain will be much minimized by a few drops of 0.5 percent quinine-urea hydrochloride, injected into neighboring tissues after operation, or by an ointment or the application of butesin picrate.

The replies showed that both high and low voltage high-frequency electric machines were used about equally.

### Sources of Blood in the Urine

In *Internat. J. M. & S.*, Apr., 1932, Dr. A. L. Wolbarst, of New York, states that information regarding the source of blood in the urine is quickly obtained by the aid of his five-glass catheter test.

The five-glass test is performed in the following manner: The patient, with a full bladder, lying on the examining table, the anterior urethra is thoroughly irrigated with a bland

solution or sterile water until the washings come out entirely clear of blood or other foreign elements; all foreign matter in washings originates in the anterior urethra. The lavage fluid is poured into a clear glass (glass 1); this represents the *anterior urethra*. Further irrigation is continued for a few moments into a second glass, as a control, this glass proving that the anterior urethra has been thoroughly cleansed.

A sterile, soft catheter of fine caliber now is introduced into the bladder and some of the contents allowed to enter a third glass, which represents the *bladder urine*. If the urine thus drawn into glass 3 is free from blood, we have absolute proof that the blood does not originate either in the bladder or in the upper urinary tract. In this event, the catheter is withdrawn and the patient voids some urine into a fourth glass. The bladder urine having been found free from blood and the anterior urethra having been thoroughly cleansed, it is evident that any blood found in the urine just voided into glass four, must necessarily originate in the *posterior urethra*.

We now have isolated both portions of the urethra and we proceed (if so desired) to investigate the prostate and seminal vesicles. With some of the urine still retained in the bladder, the prostate is gently yet firmly massaged, after which the patient voids the remainder of his urine into glass 5. Blood found in this glass is positive evidence of the *prostate* as the site of the bleeding. The vesicles may be stripped individually and separate urines voided in glass 6 and glass 7, for each of the vesicles. This is rarely necessary, however.

### A Diagnostic Sign of Chronic Appendicitis

In *Am. J. Surg.*, July, 1932, Dr. M. W. Mettenleiter, of New York City, states that for a number of years he has paid particular attention to the condition of the abdominal wall in all cases where complaints were made about pains in the appendiceal region. The examination was made by testing the thickness of the skin and the adipose tissue on corresponding spots of the right and left sides between the anterior superior iliac crests, using the thumb and index finger. One must be sure to grasp the same amount of tissue on both sides; otherwise the comparison will be faulty. There is very often a marked difference in the thickness of the two sides. The right side is decidedly thinner than the left one. Whenever this difference was found, the operation revealed pathologic changes of the appendix or of the cecum.

The author believes that the difference in thickness is due to a real atrophy of the subcutaneous tissue and the underlying muscle, due to the pathologic condition—recurring (chronic) appendicitis.

### Vitamin E

In a review of the occurrence and properties of vitamin E (the reproduction vitamin), prepared by Dr. H. McL. Evans, of Berkeley, Cal., and published in *J.A.M.A.*, Aug. 6, 1932, under the auspices of a joint committee of the

Council on Pharmacy and Chemistry and the Committee on Foods, of the A.M.A., the author resumes his research as follows:

Indubitable as are the results which have been obtained by the careful study of small rodents, one cannot say that equally conclusive proof of the need for vitamin E on the part of other animal forms has as yet been furnished. Certain investigators believe that it is necessary for the rabbit and for poultry, but it will be important for these researches to gain confirmation. The same must be said about indications of its importance in the reproduction of cattle. A few cases have been reported of habitual abortion in women, "cured" by the ingestion of vitamin E during pregnancy.

It may be that other animal forms can actually synthesize the vitamin (if they need it at all), just as the rat does the antiscorbutic vitamin C, yet until this has been demonstrated it is a preferable belief that the clearly expressed biochemical need for vitamin E, seen in the rat, has some counterpart in the chemical mechanism of other animals.

---

### Aspiration of Joints

In *J. Indiana S.M.A.*, Apr., 1932, Dr. E. B. Mumford, of Indianapolis, remarks that no longer does the fear of infection or the loss of joint fluid deter the surgeon in his exploration or repair of a joint. Aspiration of a joint is a safe surgical procedure, when done under careful, aseptic conditions. It is, therefore, a line of treatment which can be done by the general practitioner.

Effusions into joints, which form rapidly after trauma even of a trivial type, are bloody in character and should be aspirated at an early date. Blood is absorbed slowly from joints. The precipitated fibrin leads, through irritation, to very marked and serious changes within the joint cavity, requiring major operations for relief.

Many of the late joint changes which give rise to considerable impairment can be prevented by early aspiration of the original bloody fluid. Inasmuch as the traumatic joint is usually first seen by the general practitioner, he should recognize the importance of early aspiration. This applies in dislocations and fractures, as well as in the simple traumas and sprains with effusion into the joint.

---

### Study of Mercurochrome and Other Antiseptics

In *J.A.M.A.*, July 9, 1932, the Council on Pharmacy and Chemistry of the A.M.A. publishes a report by Dr. W. F. von Oettingen and associates on their "Comparative Studies on Mercurochrome and other Antiseptics."

From their studies the authors reach the following conclusions:

It appears that mercurochrome, when once fixed on the surface of the tissue, develops no bacteriostatic action in contact with bacterial cultures.

It penetrates only into the dead or dying mucous membranes of different organs, such as the bladder, vagina and digestive tract, and it

may diffuse through the cornea when in contact for a sufficient period.

It does not penetrate the living skin, but is fixed in the most superficial layers of the epithelium, and it does not penetrate or stain normal muscular tissue.

It penetrates necrotic and dead tissue and stains them deeply and permanently.

The tissue toxicity of mercurochrome is relatively low, but the 5 percent aqueous solution is distinctly injurious, as judged by excised ciliated mucous membranes.

Mercurochrome cannot be relied upon to destroy bacteria that have penetrated into the living tissue of a wound or of the skin; it could do no more than disinfect the surface and the necrotic tissue. This limitation is shared more or less by all antiseptics, so that no substance can be properly called a safe and certain wound antiseptic. No antiseptic takes the place of thorough cleansing and surgical treatment. When these are not practical, for "first aid" or for very superficial wounds, antiseptics are probably better than no treatment at all. The antiseptic efficiency of mercurochrome is not outstanding, and for skin disinfection the aqueous solution is distinctly inferior. The absence of irritation may be an advantage, especially with open wounds and for prolonged treatment; but its limitations should always be borne in mind.

---

### Vitamin B in the Clinic

A special article summarizing the present-day clinical aspects of the antineuritic vitamin (B), by Dr. G. R. Cowgill, of New Haven, Conn., appears in *J.A.M.A.*, June 25, 1932. The article has been prepared under the auspices of a joint committee of the Council on Pharmacy and Chemistry and the Committee on Foods of the American Medical Association.

The author remarks that much of the disagreement among clinicians with respect to the importance of vitamin B is doubtless due to failure to appreciate the fact that many of the studies conducted on animals are not quite comparable to those made on man. But it is obvious that, when clear-cut results are obtained in suitably controlled animal experiments, they deserve very careful consideration. Each suggestion from this field of endeavor should be given suitable clinical trial, and final judgment as to the significance of animal experiments to the clinic should be reserved until the results of clinical tests are at hand.

Recent studies show conclusively that the shortage of vitamin B can be a factor in limiting the growth of American school children.

When one considers the type of diet that many of the poorer classes are undoubtedly restricted to, these observations become even more significant. Insufficient intake of antineuritic vitamin is probably more serious in children than in adults, on account of the child's lower capacity for tissue storage of vitamin reserve, and a relatively greater need for this factor to meet the requirements of growth as well as of maintenance. It is especially important to realize that vitamin B is a dietary essential and, therefore, care should be taken to see that more than enough of this factor is being supplied at all

times, both to the growing child and to the adult.

The author is of opinion that whenever any product alleged to contain concentrates of vitamin B is offered for use by the clinician, there should be evidence that the material really contains an appreciable amount of the antineuritic vitamin; this evidence may be obtained by animal tests and the wise clinician will insist that such proof be obtained.

### The Antipellagic Factor— Vitamin B<sub>2</sub> (G)

Summing up a historical review of the present status of vitamin B<sub>2</sub> (G) in *J.A.M.A.*, July 2, 1932, Dr. B. Sure, of Fayetteville, Ark., states that his own investigations show that there is no relation between the failure in growth and the incidence of pellagra-like symptoms in the rat, dermatitis being prevalent in some animals that make normal growth, and absent in others that are first stunted in growth for weeks and months, and finally collapse following great losses of body weight.

It is suggested from this study that the so-called vitamin B<sub>2</sub> (G) is composed of two dietary essentials; one, the deficiency of which produces pellagra-like symptoms in the rat, and another, the deficiency of which produces a decline of growth. A final decision as to nomenclature of the so-called antipellagic factor should still be held in abeyance.

### Pellagra and Vitamin G

In reviewing, in *J.A.M.A.*, July 9, 1932, the clinical aspects of vitamin G deficiency, Dr. F. P. Underhill, of New Haven, remarks: It would appear from this review that the allocation of vitamin G as the sole factor in pellagra is not well established and that too much reliance should not be placed on this agent in the prophylaxis and treatment of pellagra. A period of more than five years has now elapsed since the promulgation of Goldberger, as to the effectiveness of the antipellagic vitamin; but it would seem that vitamin G, so far as it plays a rôle in the syndrome of pellagra, may be of far more value as a prophylactic measure than as a curative agent.

### Is the Increase of Cancer Real or Apparent?

Based upon a study of Canadian statistics, Dr. Madge T. Macklin, of the University of Western Ontario, states in *Am. J. Cancer*, Sept., 1932, that cancer is increasing, particularly in the age group over sixty. The reason for its increase is not that it is occurring at progressively younger ages, or attacking larger percentages of the younger population. Despite its increase, deaths are fewer from all causes now than they were. We have won more ground from the ravages of infectious disease than we have lost to those disorders which are dependent upon inherent qualities in the chemical and physical makeup of the individuals. Cancer is increasing because, by preventive methods, there

has been created a larger population to grow old; and having grown old, they are kept from dying of those ills from which they formerly suffered. With each increase in the warfare against preventable diseases, there will be an increase in the ravages from cancer, for with each victory there is created a greater available population to die from that disease.

There is strong ground for believing that a similar analysis of the statistics of any other country would lead to the same conclusions. It is true that there may be racial differences in immunity to cancer, but the conclusion here reached will probably prove universal; namely, that excellent public health measures and high cancer rates are inseparable, at least for the present. Those who point to the low cancer rates existing among primitive peoples, and who state that cancer is a disease of modern civilization, neglect to call attention to the fact that preventive medicine is, itself, a triumph of modern civilization.

### Solution of Choice in Proctoclysis

In *Surg. Gynec. & Obst.*, May, 1932, Dr. G. L. Perusse, of the Department of Physiology of the University of Chicago, reports the testing of a large number of solutions to discover which was the most suitable for proctoclysis.

The rôle of proctoclysis is in the establishment and maintenance of water balance in selected cases, where it is impossible or inadvisable to administer fluids by mouth. It is used rather than hypodermoclysis or intravenous infusion in any but acute conditions, and in conjunction with those methods in the latter. It is the author's contention that such administration of fluid is thoroughly adequate and physiologic.

One-percent glucose (dextrose) solution is the most efficient proctoclyster of those studied in this series. It may be combined with 0.5-percent sodium bicarbonate, with a somewhat lowered rate of absorption, but a possible greater effect in combating acidosis.

Of the inorganic salts studied, 0.5-percent sodium bicarbonate solutions were superior to others in rate of absorption.

Isotonicity is not the ideal concentration for a given solution, for by maintaining such a concentration we are neglecting one of the best properties of the gut; its action as a semipermeable membrane. Hence, if we introduce a solution definitely hypotonic to the blood it is more readily absorbed — following the laws of osmosis. In regard to the dextrose solutions, we may consider that the selective activity of the gut cells comes into play.

### Dietary Treatment of Arthritis

In *Ann. Intern. Med.*, Apr., 1932, Drs. R. Pemberton and E. G. Pierce, of Philadelphia, express the opinion that, in a number of cases of arthritis, under conditions of undernutrition approaching starvation, not only may the active symptoms of the disease subside but there may be also, occasionally, an absorption of detritus or pathologic exudate in or around joints nearly or quite ankylosed, which reduces the amount

of limitation to motion imposed by the existing fibrous contractures. In suitably selected cases the gain so achieved, though necessarily of small extent because of bony impingements and the like, may have great significance for the activities of the patient.

Cases of both atrophic and hypertrophic chronic arthritis have experienced sharp improvement upon low-calorie diets from which all vitamins were definitely excluded. The reduced food intake and not the presence of vitamins primarily determined the immediate and sharp benefit observed.

### Aluminum Hydroxide Treatment of Peptic Ulcer

A study of 25 patients, in whose cases the treatment was tried, as reported by Drs. I. H. Einsel and V. C. Rowland, in *Ohio St. M. J.*, Mar., 1932, shows that aluminum hydroxide is useful in the treatment of peptic ulcer and is free from the disadvantages of absorbable alkalis and the danger of alkalosis.

Aluminum hydroxide powder is chemically neutral by titration with N/10 HCl and has little neutralizing power in the gastric secretion. A gelatinous aluminum hydroxide cream will neutralize 10 times its volume of N/10 HCl and reduce gastric acidity better than will free alkali.

Blood analysis shows practically no absorption of aluminum hydroxide in 32 Gm. daily dosage and no alteration of the acid-base balance. There is no evidence of toxic action upon the kidneys or other organs.

Symptomatic relief was surprisingly prompt and continuous in 92 percent of 38 x-ray-positive duodenal ulcer cases.

The aluminum hydroxide cream is given in 4 cc. doses, in one ounce of water, one-half hour after each feeding. Remarkable symptomatic relief is observable after a few days.

### Tuberculous Adenitis Treated with a Protein-Mineral Combination

In 1897, Danilevsky, in Leningrad, succeeded in extracting protein-calcium phosphate from cow's milk.

In *M. J. & Record*, Mar. 16, 1932, Drs. O. B. Wanshenk and M. L. Furman, of New York, report having used this protein-calcium therapy successfully in cases of tuberculous adenitis.

The technical difficulties of producing protein-calcium phosphate on a large scale being very great, the authors used a modified method; namely, a preparation derived from cow's milk which contained 8 to 11 percent minerals, 1.1 percent fats and 70 percent lactose. To this was added 2 percent protein-calcium phosphate, prepared according to the original method. This combination produced the desired effect in a series of 34 cases of human glandular tuberculosis, after its value had been demonstrated in animals with experimentally produced tuberculosis.

Usually two heaping teaspoonfuls of the protein mineral compound were given three or four times daily and continued for several months. The authors consider that the successful results are due to the calcium absorption.

### Subcutaneous Injections of Oil in Infant Nutrition

In *Northwest Med.*, Apr., 1932, Dr. R. G. Hall, of Portland, Ore., summarizes the literature pertaining to the use of injections of oil (especially vegetable oils) for various conditions of malnutrition.

The author gave subcutaneous injections of cottonseed oil in 10 cases of severe malnutrition, commencing usually with 1 cc. and increasing to 10 cc. administered every other day for varying periods according to the case. The injections are given with a short-bevelled needle near the middle line of the back, to avoid large veins and the danger of embolism. All these children gained weight and improved in every way.

The author is of opinion that, in the use of subcutaneous injections of oil, we have a comparatively new, simple and very efficient means of combating severe cases of malnutrition, in babies and young children.

### Etiology of Fistula in Ano

In *Am. J. Surg.*, Apr., 1932, Drs. C. D. Gaston and M. D. Hogan, of Birmingham, Ala., report that, in 667 major rectal operations, performed in their clinic since 1927, 140 presented fistula.

A fistula cannot be cured until the true internal opening is discovered in proper surgical fashion. In 105 cases the internal opening was revealed in a diseased crypt; the authors believe that neglected hemorrhoids are an important predisposing source of infectious cryptitis. In 22 cases rectal stricture was the cause. In 8 the internal opening was found in a perforated anal ulcer. In 4 cases traumatism—2 developing after hemorrhoidectomy—was the influencing factor.

Only 17 of the total 140 cases presented any evidence of associated tuberculosis, and the authors consider that this careful check on 140 cases presents substantial data for existing proof against tuberculosis as a causal agent in fistula in ano, although such an opinion is widely held.

The authors believe that the use of regional (sacral) anesthesia greatly facilitates the location of the internal opening of the fistula. It allows easy breathing, cooperation, muscular relaxation, untraumatized tissue and a bloodless field, as well as operation in cases of poor risk.

### Oleothorax

The use of antiseptic oils in the treatment of pleural infections is very old. In *Am. J. Surg.*, April, 1932, Dr. H. C. Ballou, of St. Louis, reports 5 cases in which this procedure was carried out in patients with tuberculous lesions of the lungs and pleura, and as a supplement to pneumothorax in the treatment of bronchiectasis or of incomplete thoracoplasty for pulmonary tuberculosis.

Sterilized paraffin, supplemented by gomenol, was used, 5 cc. of 5 percent gomenol being added to every 95 cc. of liquid paraffin after sterilization. A stronger gomenol solution (up to 20 percent) was employed when antiseptic rather than mechanical action was desired. A

few cc. of brominized oil may be added if roentgenographic visualization is employed as a check. The first injection should not exceed 100 cc. to replace aspirated air, but is usually much less and the injections are repeated until the pleural cavity is filled.

The author considers that his experience justifies the continued use of this form of treatment for purposes of compression and disinfection in selected cases only, when other recognized methods fail.

### Treatment of Varicose Ulcers

In *Ohio St. M. J.*, July, 1932, Dr. R. S. Gillette, of Toledo, remarks that the Unna boot method of treating varicose ulcers has been most popular within the past few years. The composition of the paste used for the Unna boot has been modified as follows, by Dr. J. W. Sooy, of Baltimore:

Glycerin.....	1,900 Gm.
Gelatin.....	625 "
Water.....	1,900 cc.
Zinc oxide.....	250 Gm.
Phenol.....	1.50 per-

cent of total volume.

Ten pounds are sufficient for seven dressings. Some who have used the modified Unna boot have failed to get results, because they left the application intact for several weeks. The boot should be removed at the end of seven days, and the leg and ulcer washed thoroughly with soap and water and exposed for at least one hour before applying a new boot. Boots should be removed at weekly intervals until the ulcer is completely healed. Large lesions require eight to ten boots.

The correct application of the boot is very important and smooth application is much more necessary than even in applying a plaster cast.

When the ulcer has been completely healed, attention — surgical if necessary — must be given to varicose veins. The injection method is the safest and most satisfactory for small and medium sized veins.

### The Pecten and Pectenosis

In *Lancet*, (Lond.) Apr. 2, 1932, Dr. A. L. Abel treats of the "pecten," a name given to approximately the middle third of the anal canal, which marks the union of the proctodeum and the hind gut.

The anal crypts of Morgagni, which are a part of the pecten, form little sacculles in which bacteria and small foreign bodies may lodge. Irritation in the region of the pecten causes tenesmus and neuralgia of the rectum.

It is customary to classify diseases proximal to the pecten as visceral diseases and those distal as perineal; the pecten also marks the proximal boundary of pruritus ani and is the dividing line between external and internal hemorrhoids.

Cracks or fissures in the region of the pecten are by far the commonest portal of entry of microorganisms into the lymphatics and veins of the anal canal and then to the tissues around the anus, giving rise to ano-rectal abscesses and fistulas. There is no doubt that pectenosis is the most frequent precursor of ano-rectal fistulas.

The old-fashioned procedure of stretching the sphincters produced a rupture of the fibers of the pecten band, usually with multiple areas of extravasation of blood, the further formation of fibrous tissue and, ultimately, a thicker and denser pecten band. A much more satisfactory and certain method is to make a clean incision through the pecten band; no hidden areas of hemorrhage are left to fibrose and contract; a healthy mucosa of the pecten results.

This operation of pectenotomy is usually performed with the patient lying in the right lateral position. The index finger of the left hand is inserted into the anal canal without lubricant. The right posterior quadrant of the anal canal is everted. A little to the right of the midline, an incision is made parallel to the long axis of the bowel, the upper end being situated half an inch above Hilton's white line and its lower end a short distance below this line. Immediately the mucous membrane and skin have been divided, the white fibers of the pecten band come into view at the upper end of the wound and the reddish-brown fibers of the external sphincter may just be seen at the lower end of the wound. The latter are carefully avoided and the incision is carried deeper until the complete thickness of the dense fibers of the pecten band is divided. Immediately this is done the anus is found to be relaxed and two or three fingers can easily be passed into it, whereas before the pectenotomy great difficulty may have been experienced in even passing the index finger.

### Gastric Mucin in the Treatment of Peptic Ulcer

In *J.A.M.A.*, Apr. 2, 1932, Dr. A. J. Atkinson, of Chicago, reports upon 43 patients, with complete clinical and other evidence of peptic ulcer, who were treated with mucin.

The therapeutic dosage of mucin totaled 90 Gm. a day, but 3 patients received as much as from 150 to 238 Gm. a day.

During the treatment, the first change noted is a diminution of pain at night and an absence of pain during the period of the day that mucin is being taken. Vomiting ceases almost immediately and does not occur after the pain has disappeared. Pain usually disappears by the second or third day; abdominal cramping, gaseous disturbances, eructation and regurgitation, which may have accompanied the disease, later disappear; occult blood has not persisted longer than 9 days in any patient in this series. Those patients that have been reexamined roentgenographically (18 cases) have apparently manifested less spasm.

All patients have continued treatment throughout the observation period, which has varied from 3 to 12 months.

The 43 patients in this series became symptom-free within an average period of 1.7 days. The average duration of ulcer history was 5.2 years.

The average hospitalization under mucin treatment was 0.71 weeks per patient.

In the same Journal, Dr. A. B. Rivers and associates, of Rochester, Minn., report having demonstrated in certain specimens of commercial mucin the presence of large amounts of a secretagogue which, by biologic tests, seems to



be histamine. The presence of this substance may be looked upon as a dangerous contaminant which can be avoided if proper methods of preparation are used. They say that until a consistently standardized, pure product is supplied, it will be impossible to evaluate the therapeutic use of mucin.

### Vitamin Therapy in Measles

There is a strong belief that vitamin A increases the resistance of the body against infections. In the human subject it has been difficult to prove this, owing to the lack of conclusive clinical evidence. Fortunately, such clinical evidence is now available, in the case of measles, furnished by a report by Dr. J. B. Ellison in the *British Med. J.*, Oct. 15, 1932.

One of the first results of vitamin A deficiency is shown, by experimental investigations, to be a degeneration of the epithelial tissues of the upper respiratory tract. In measles the brunt of the attack falls upon the epithelial structures. It is reasonable, therefore, that vitamin A therapy should be particularly effective in this disease.

In a large London hospital, observations were made upon 600 children under 5 years old, treated for measles between October 1931 and April, 1932. They were divided into two equal groups. One group received intensive vitamin A and vitamin D treatment, especially vitamin A. The other group acted as controls; they were treated in every sense in the same way as the first group, except that the vitamin medication was omitted.

In the vitamin-treated group there were 11 deaths—3.7 percent mortality. In the control group there were 26 deaths—a mortality of 8.7 percent. The general expected rate of mortality in this class and type of disease is about 8 to 9 percent.

In the vitamin-treated cases pulmonary complications were much less severe. There were 32 complicated by pneumonia with 10 fatalities. In the control group there were 34 pneumonia complications with 23 fatalities.

The author observes that the use of a concentrate rich in vitamin A, as a prophylactic against secondary infections in young children known to have been exposed to measles, might well repay further study.

### The Newer Obstetrics

Comparing the newer with the older obstetrics, Dr. A. H. Bill, of Cleveland, in *Am. J. Obstet. & Gynec.*, Feb., 1932, remarks that it would seem that the most marked feature of present-day obstetrics is the fact that there is a distinct spirit of activity, of being ever alert to do something to relieve the patient and to safeguard her and her baby from the dangers which are ever associated with labor, as against the older policy of letting nature take her course.

The significant features of the newer obstetrics, as given by the author, are: prenatal care; early detection of toxemia and preventive treat-

ment of eclampsia; early treatment of complications and avoidance of induction of labor; use of blood transfusions for hemorrhages; improvement in technic and widening of scope of cesarean section; introduction of the use of pituitary extract; scrupulous maintenance of asepsis; increased use of forceps and version; relief of pain by analgesics; hospitalization of maternity patients.

The chief objection to the newer obstetrics is that the profession in general can not carry out such methods; it is for those who have spent sufficient time in preparation for this study.

If the mortality and morbidity results of the new school of obstetrics were only as good as those of the older school, there would be much to be said in favor of the latter. It would appear, however, that, when carried out by the well trained and competent, the newer methods tions of the gastrointestinal tract.

### Chemical Aspects of Acute Intestinal Obstruction

In *Western J. Surg. Obstet. & Gynec.*, Feb., 1932, Dr. T. G. Orr, of Kansas City, states that, in acute upper small intestinal obstruction, the typical changes that develop in the chemistry of the blood are decrease in the chlorides, an increase in the nonprotein and urea nitrogen and an increase in the carbon dioxide combining power.

It appears from recent researches that, by maintaining sodium chloride balance in the body in upper intestinal tract obstructive lesions, other chemical factors are also maintained in balance. This specific quality of sodium chloride is only active in its fullest measure when sufficient water is supplied to relieve or prevent dehydration.

Distilled water and glucose are not in any sense substitutes for sodium chloride solution in the treatment of obstructive or paralytic conditions of the gastrointestinal tract.

### Vaginal Infections in Infants and Little Girls

What he considers a rational, simple and highly effective method for the treatment of primary vaginitis is described by Dr. G. C. Schauffler, of Portland, Ore., in *Am. J. Dis. Child.*, Feb., 1932.

Douches, instillations and suppositories do not give complete satisfaction. An antiseptic ointment, particularly if compounded in a heavy base, constitutes the best treatment medium. The most efficacious ointment is plain anhydrous wool fat with 1 percent silver nitrate, incorporated with the least possible solvent fluid. Its firm consistency allows distention of the vaginal crypts under low pressure. The mixture is warmed to softness, injected high into the vagina and allowed to flow out around the catheter. The child should be treated every day for the first week, every second day for the subsequent two weeks, and twice a week after this until all evidence of a discharge has disappeared.

## NEW · BOOKS

*Literature is the only self-sufficient pleasure  
available to human beings.*

### Rowe: Diagnosis of Endocrine Disorders

THE DIFFERENTIAL DIAGNOSIS OF ENDOCRINE DISORDERS. By Allan Winter Rowe, Director of Research, Evans Memorial, Massachusetts Memorial Hospital, Boston, Massachusetts. Baltimore: Williams and Wilkins Company, 1932. \$4.00.

This monograph embodies the formal presentation of material from over 5,000 individual studies, begun in 1912 and prosecuted without remission to the present time, by a large staff of highly trained clinicians and laboratory workers under the direction of the author.

The main thesis is the comparison of objective, subjective and laboratory findings in groups of frankly or latently endocrinopathic subjects, in contrast with non-endocrinopathic patients. Such findings are tabulated and discussed for each of the important endocrinopathies, as well as for hypofunction, hyperfunction and dysfunction of the glands. In the compilation of the clinical and technical data, a vast number of records have been made, ranging from single individual physical and chemical studies to series of lengthy and carefully conducted interviews which form the basis of a psychiatric report.

The book is divided into three main sections: clinical considerations, laboratory measurements and special examinations. The tables and text are given in terms understandable to the practitioner, the practical diagnostic aspects being stressed.

One of the main difficulties in applying scientific knowledge of endocrine functions and dysfunctions in everyday medical practice has been the lack of definite differential diagnostic data. The patient and painstaking compilation of clinical data represented in this work will do much to fill this gap. The observed facts are there for the practitioner, if he chooses to dig in and spread them out in such a light as to study them in his own way. The only criticism that can be offered of the author's presentation is that, perhaps, the various endocrinopathic syndromes might have been tabulated with their more distinguishing characters, so as to help their quicker recognition. However, the author remarks that no test or picture is diagnostically significant, but derives its true diagnostic significance from its interpretation in terms of all other available information.

The monograph will be of particular value to endocrinologists and general clinicians.

### Short: Index of Prognosis

AN INDEX OF PROGNOSIS AND END-RESULTS OF TREATMENT. By Various Writers. Edited by A. Rendle Short, M.D., B.S., B.Sc. (Lond.); F.R.C.S. (Eng.), Hon. Surgeon, Bristol Royal Infirmary. Fourth Edition, Fully Revised, New York: William Wood and Company, 1932. Price \$12.00.

The last previous edition of this book was published nine years ago. Since then, the prognosis of many surgical and medical conditions has changed; thus, the book has had such a thorough revision that about half of it is new. Changes will be found in most of the surgical and gynecologic articles and in the medical sections on diabetes, pernicious anemia and nephritis. Mental disease is given considerable space in a long, new article.

As explained in the preface, the chief purpose of the volume is to set forth the end-results of various methods of treatment in medical and surgical conditions, to enable the practitioner to form a fair opinion as to the prospects of securing permanent relief for the patient. The text begins with abdominal injuries and ends with yellow fever, giving consideration to all the general (and many of the specific) conditions met with in medical and surgical practice. Individual topics are considered as briefly as is consistent with presenting the facts pertaining to prognosis. Descriptive or explanatory statements are inserted as indicated, but in most instances it is assumed that the reader is familiar with the disease or disorder, and much valuable space is thus saved for presentation of the material of chief importance. In most instances the reader gets the information wanted by reading a few sentences or paragraphs. The entire book is written with the conservatism so characteristic of English medicine.

The volume will be a great aid to the average practitioner, worthy of being kept on his desk for ready reference, along with his textbook of medicine and the latest issues of his favorite medical journal. The first edition of the book appeared in 1915. As stated by its editor at that time: "This volume is unique . . . It therefore possesses a value of its own, and one

which time will not diminish." These statements are just as true today.

### Kaiser: Tonsils

**CHILDREN'S TONSILS IN OR OUT: A Critical Study of the End Results of Tonsillectomy.** By Albert D. Kaiser, M.D., Associate Professor of Pediatrics, University of Rochester Medical School; Chief Pediatrician, Rochester General Hospital; Pediatrician, Rochester Dental Dispensary. Illustrated. Philadelphia: J. B. Lippincott Company, 1932. Price \$5.00.

The question of the ultimate value of tonsillectomy as a prophylactic procedure is still a vexing one, leaving aside methods of executing it. There seems to be a fairly general agreement that the routine carrying out of this surgical operation in the past has been too drastic and there is evidence in the literature that the tendency has been curbed; on the other hand, at the present time, sound medical opinion appears to favor the view that removal of diseased tonsils and adenoids is desirable and benefits the child, although some recent reports indicate that the advantages have been somewhat overrated. The important point to determine is, what are the precise indications?

Dr. Kaiser has, during the past ten years, made a practical study of this tonsil question, based on clinical material available in the city of Rochester, N. Y. The growth and development of two groups of children, one tonsillectomized and the other not, has been carefully investigated and constantly followed and recorded during this period. This follow-up study involved 5,000 children.

The 27 chapters making up the book discuss the anatomy and bacteriology of the tonsils and their relations with various infections, colds, throat and ear infections, sinusitis, fevers, rheumatism, nephritis, asthma, etc. The comparative incidence of these complications in the two classes of children are brought out in statistics.

Dr. Kaiser's general conclusions, that tonsillectomy and adenoidectomy are indicated only in certain definite conditions and are contraindicated as routine procedures, would appear to be in accord with the present general medical view, and his statistics and findings offer definite data supporting this view.

The work should be of interest to every practitioner of medicine, as well as to laryngologists and pediatricians, who should have definite views when parents consult them in regard to the advisability of removal of tonsils and adenoids.

### Williams: Streptococci

**STREPTOCOCCI IN RELATION TO MAN IN HEALTH AND DISEASE.** By Anna W. Williams, M.D., First Assistant Director, Bureau of Laboratories, Department of Health, City of New York. Baltimore: Williams and Wilkins Company, 1932. Price \$5.00.

The group of bacteria known as streptococci is one of the most, if not the most, important of the bacterial groups admitted to have a great influence upon man's welfare. In this monograph the author, who is conceded to be an

authority on the subject, covers, in as clear and simple a manner as possible, the extent and limits of our knowledge regarding the manifold activities of these many-sided microbes, particularly in their relationship to man; it is shown to what extent this knowledge is of practical use, more especially as it affects clinical diseases due directly to pathogenic streptococci, such as septic sore throat and infection or diseases in which these bacteria occur as secondary invaders.

The volume contains a full consideration of the methods of studying the different streptococci and their identification through their endotoxins, exotoxins and antisera. There are 12 chapters, most of which deal with particular disease groups identified with specific streptococci. The literature regarding each phase is thoroughly ransacked and digested. There is a very extensive bibliography at the end.

The book, which may be regarded as an authoritatively connotated, scientific collective review, is preeminently one for bacteriologists, but certain chapters such as those on the rheumatic state and on local and general infections will be found most interesting and instructive to clinicians and to all who are interested in etiologic investigations.

### Maingot: Abdominal Operations

**THE MANAGEMENT OF ABDOMINAL OPERATIONS.** By Rodney H. Maingot, F.R.C.S., England, Surgeon, Royal Waterloo Hospital, London, Visiting Consulting Surgeon, Victoria Hospital, Southend-on-Sea; Late House Surgeon and Chief Assistant to a Surgical Unit, St. Bartholomew's Hospital, London. New York: William Wood and Company, 1932. Price \$2.50.

This is a series of short essays on various points connected with the preoperative and post-operative care of patients undergoing abdominal surgical operations. Such knowledge is not always to be found in regular textbooks and is acquired mostly by experience. The practical matters collected here should be of great value to house surgeons, internes, nurses and all who are associated with the work in surgical wards.

### Würdemann: Injuries of the Eye

**INJURIES OF THE EYE; Diagnosis and Treatment, Forensic Procedures and Visual Economics.** By Harry Vanderbilt Würdemann, M.D., Sc. D., F.A.C.S., Colonel, Medical Reserve Corps; Flight Surgeon Air Corps, U. S. Army; Medical Examiner, Aeronautics Branch, U. S. Department of Commerce, Seattle, Washington. Second Edition. With 236 Illustrations and 10 Color Plates. St. Louis: The C. V. Mosby Company, 1932. Price \$13.50.

Würdemann's treatise on injuries of the eye has been well known to oculists since its first appearance over twenty years ago. It is what the author claims for it—an exhaustive and authoritative work upon the subject.

There are three main divisions: general injuries; injuries of the special structures of the eye; and forensic medicine, as it relates to the eye. Each part has an appropriate number of chapters dealing with special aspects.

The book is mainly clinical and therapeutic, but enough etiology and pathology are included to elucidate the phases of the subject as presented. The author illustrates his text by numerous case reports drawn from his own large experience of over 40 years or, when this is not adequate, by cases reported by others. These clinical examples make up a large part of the work. In this second edition the literature of the past twenty years has been thoroughly digested for illustrative material and the text amplified or rectified accordingly.

There is no doubt of the value of this rich clinical material, to the oculist and to industrial physicians. Except as a work of reference, it is too elaborate for the general practitioner who, although he must care for such injuries, generally confines his ministrations to first-aid measures, except in simple injuries.

The book is well printed and legible and the paper and binding are good. Most of the illustrations are original.

### Miller: Clinical Gynecology

CLINICAL GYNECOLOGY. By C. Jeff Miller, M.D., Professor of Gynecology, Tulane University School of Medicine; Chief of the Department of Gynecology of Toussaint Infirmary; Senior Visiting Surgeon, Charity Hospital, New Orleans. Illustrated. St. Louis: The C. V. Mosby Company, 1932. Price \$10.00.

This clinical handbook is intended to serve as a companion volume to the author's *Introduction to Gynecology*. The latter covers the field of the pathology, symptomatology and diagnosis of the diseases of women; the present volume deals exclusively with the therapeutics.

There are three parts: Part I deals generally with gynecologic diseases and their treatment; Part II covers therapeutic measures in gynecologic disease; Part III is devoted to operative gynecology.

The work is intended for the student who, because he is just beginning his study of gynecologic therapy, lacks the ability to use the larger and more comprehensive textbooks selectively. All that such a student needs to know of therapy is here; the orthodox therapeutic procedures are described, although, naturally, the author colors his statements in the light of his own extensive clinical therapeutic practice.

The book is well printed on good paper and there is an excellent index.

### Medical Clinics of North America

MEDICAL CLINICS OF NORTH AMERICA. Chicago Number. Volume 16, Number 2, September, 1932. Philadelphia and London: W. B. Saunders Company. Issued serially, one number every other month. Per Clinic year, July, 1932 to May, 1933. Price, Paper, \$12.00; Cloth \$16.00.

The September 1932 number of *The Medical Clinics of North America* is a Chicago number and contains 25 contributions from members of the staffs of the principal hospital clinics of that city.

The volume begins with a symposium on diseases of the heart, in which eight papers

cover different phases of the condition, from congenital maldevelopment to the hypertension and nephritis of adult life, the clinical illustrations being such as the general practitioner will encounter in routine office and bedside practice.

Other contributions of interest to the general practitioner are: "Alkalosis," by Dr. Jas. G. Carr; "Premature Infants," by Dr. Julius H. Hess; "The Clinical Management of Peptic Ulcer with Mucin" by Dr. A. J. Atkinson and another paper on the same subject by Dr. C. F. G. Brown. There is also an excellent paper on "Acute Anterior Poliomyelitis," by Dr. J. R. Gerstley.

### Burridge: Physiology of Sensation

A NEW PHYSIOLOGY OF SENSATION: Based on a Study of Cardiac Action. By W. Burridge, D.M., M.A., Professor of Physiology, Lucknow University. London: Humphrey Milford, New York: Oxford University Press, 1932. Price \$1.50.

In this philosophic-physiologic essay the author applies to some problems of sensation his discovery that a rhythmically active organ, such as the heart, possesses a hitherto unrecognized quality which he terms responsiveness to environment and which has its own laws.

So far as the author's argument can be followed by a general reader, it appears only to amount to the conclusion that psychic energy activity is rhythmic and evoked by neural activity and that psychic capacity is finite and varies with the individual. It is questionable if there is anything particularly new in these concepts.

The author's speculations offer some food for thought to physiologists and metaphysicians.

### Hall: Occult Anatomy

MAN, THE GRAND SYMBOL OF THE MYSTERIES; Essays in Occult Anatomy, by Manly P. Hall. Los Angeles, Calif., Manly P. Hall, Publications, 1932. Price \$3.00.

As far back as the times of Plato and Socrates there are hints of a recognition of the fact that there is a greater correspondence between the human body and the manifested universe, of which it is a part, than meets the consciousness of the casual thinker. The Greeks inherited the wisdom of Egypt which, in turn, had come from Northern Asia; the Arab took over the scientific learning of Greece; and Europe appropriated the Arabian culture without acknowledgment.

The researchers and mystics of the Middle Ages added much to the knowledge of occult anatomy; but of all these contributions of past centuries, little remains to us except fragments, hidden away in unusual books and manuscripts where they are not accessible to any but earnest seekers and scholars.

In this volume, the author has made a very successful attempt to gather these fascinating fragments and present them, in a coordinated fashion, for the study of those who are interested in such matters. Many illustrations, taken from rare volumes of the sixteenth, seventeenth and eighteenth centuries, as well as even older

sources, are included. Here are anatomic drawings by Vesalius and Leonardo da Vinci; mystic and symbolic diagrams by Robert Fludd and other Medieval scientists; and Cabalistic interpretations.

The first chapter, "Restating the Theory of Education," is one of the most trenchant and stimulating essays along that line that one will encounter. The chapters on the blood, the pineal and other endocrine glands, and the sympathetic nervous system are especially full of interest.

Two quotations will suggest the author's viewpoint: "Not to kill out idealism, but to make the world safe for ideals is the true purpose of education . . . True education is learning how to build an adequate foundation under the ideals of the race"; and "Mysticism is not a vagary to amuse superannuated midwives. It is a distinct department of learning which, if given proper consideration and opportunity, could make a definite contribution to world normality and well-being."

Here is a book which offers a well-filled ladder of food for thought to any physician who has a desire to look behind the superficialities which content the vast majority of mankind, and which should add to his joy and success.

### Thornton: Medical Formulary

A MEDICAL FORMULARY. By E. Quin Thornton, M.D., Assistant Professor of *Materia Medica* in the Jefferson Medical College, Philadelphia. Thirteenth Edition, Revised. Philadelphia: Lea & Febiger. 1932. Price \$2.50.

Every physician needs a good formulary. Thornton's formulary is a good one, as evidenced by the fact that it has now reached its thirteenth edition.

The prescriptions are arranged under the diseases for which indicated, the latter following an alphabetic order and thus making an index unnecessary.

The first part of the book contains tables of dosage and many other matters of general interest to the doctor.

### Bland: Obstetrics

PRACTICAL OBSTETRICS FOR Students and Practitioners. By P. Brooke Bland, M.D., Professor of Obstetrics, Jefferson Medical College; Chief Obstetrician, Jefferson Medical College Hospital, Philadelphia, Pa. Assisted by Thaddeus L. Montgomery, M.D., Associate in Obstetrics, Jefferson Medical College, Philadelphia, Pa. Illustrated with 516 Engravings, Including 21 Colored Plates. Philadelphia: F. A. Davis Company. 1932. \$8.00.

With several excellent obstetric manuals and textbooks for students and practitioners available, the appearance of a new one calls for some justification. This is best supplied in the words of the author: "We have endeavored to provide the student with a concise textbook, the practitioner with a dependable guide and the specialist with an exposition of our personal views on current obstetric problems. In this volume will be found certain theoretical considerations which are regarded as modern and

rational, as for instance, the newer concepts of obstetric physiology, the most recent views respecting the various phases of pregnancy toxemia, as well as the etiology, pathology and therapy of puerperal infection."

The 25 chapters of text discuss all the features of modern obstetric practice. As a student's textbook, more detailed explanations and descriptions would necessarily be supplied by didactic lectures and clinical demonstrations. The general practitioner, with a background of practical experience, will find the volume very useful for reference and supplemental information on special points which might arise in everyday work.

### Physicians Visiting List

THE MEDICAL RECORD VISITING LIST OF Physician's Diary for 1933. Revised. Baltimore: William Wood & Co. Price, 30 patients, \$1.75; 60 patients, \$2.00; 90 patients, \$2.50.

Every practicing physician needs a handy, compact and good looking pocket book in which to keep records of his appointments, calls, consultations, obstetric engagements, financial transactions and other important data. The "Medical Record Visiting List" has served this purpose well and at a reasonable price for years, and the present edition is a worthy successor to those of the past and can be cordially recommended for its intended purpose. If regularly and intelligently used it will save any clinician much annoyance and many dollars.

### An "Insane Asylum" from Inside

BEHIND THE DOOR OF DELUSION. By "Inmate Ward 8." New York: The Macmillan Co. 1932. Price \$2.00.

Never before, so far as the reviewer can remember, has there been published a description of a mental hospital, or "insane asylum," as it is still called by most laymen, written by one of the inmates. Such an account would, of course, be of no value if it expressed the ideas and observations of one whose mind was at all seriously impaired, and of little interest if it was the work of a tyro at the literary game.

The author of this book, however, is a trained and experienced writer, who permitted himself to be committed in the hope that he might be cured of dipsomania. In other respects his mind was perfectly sound, and he is a keen observer of men and events.

Between the covers of this remarkable volume will be found many things that are almost as little known to physicians—even psychiatrists—as they are to the lay public. For the first time there is available to the general reader an unbiased and direct account of what goes on behind the walls of those institutions which are dreadful mysteries to most people and about which so many wholly erroneous impressions are widely current.

In only one chapter of the twenty-one does the author display that emotional bias in his thinking which is so common among those who have not been declared insane. That appears in the chapter on sterilization, about which he *feels*, rather than *thinks*.



This book is cordially recommended to thoughtful readers of all classes, especially to physicians, who will find their thinking much clarified by its careful perusal. It is well written, informative and more fascinating than most novels.

### Bourne & Williams: Obstetrics and Gynecology

RECENT ADVANCES IN OBSTETRICS AND GYNAECOLOGY. By Aleck W. Bourne, M.A., M.D., B. Ch. (Camb.), F.R.C.S. (Eng.) F.C.O.G., Obstetric Surgeon to Out-Patients, St. Mary's Hospital; Senior Obstetric Surgeon, Queen Charlotte's Hospital, etc. and Leslie H. Williams, M.D., M.S. (Lond.) F.R.C.S. (Eng.) M.C.O.G., Obstetric Surgeon to Out-Patients, St. Mary's Hospital; Obstetric Surgeon to Out-Patients, Queen Charlotte's Hospital; etc. Third Edition, With 87 Illustrations. Philadelphia: P. Blakiston's Son & Co., Inc. 1932. \$3.50.

This monograph is one of the *Recent Advances Series* designed for the guidance of the practitioner and senior student from the practical clinical point of view. It is a synopsis of obstetrics and gynecology, based on British practice, with statistical and other data and stressing the discussion of the newer procedures.

While there is but little that is essentially new to American readers, the book is well and thoughtfully written and presents the two subjects in a very informative and concise manner.

### McGregor: Surgical Anatomy

A SYNOPSIS OF SURGICAL ANATOMY. By Alexander Lee McGregor, M.Ch. (Edin.), F.R.C.S. (Eng.), Lecturer on Surgical Anatomy, University of the Witwatersrand; Assistant Surgeon, Transvaal Memorial Hospital for Children. With a Foreword by Sir Harold J. Stiles, K.B.E., F.R.C.S. (Edin.). Illustrated. New York: William Wood and Company. 1932. Price \$5.00.

This work is replete with anatomical facts of practical value to both the medical student and the general practitioner. It is not an exhaustive work on surgical anatomy, but a comprehensive reference book, stressing the most salient features pertaining to the subject. Nor is it a textbook of topographic anatomy, in the strict sense of the term. Surgeons particularly, who are reviewing the surgical anatomy for a contemplated surgical procedure, will find prompt information at a glance.

An admirable feature of the work is that it is divided into two parts. Part I deals with the anatomy of the normal, and part II with the anatomy of the abnormal. In the former, topographic anatomy is discussed by regions, and in the latter, congenital malformations and aberrant entities of the various parts of the body are lucidly described. No surgeon can be successful who is not at the same time a good anatomist. He should, at least, master the anatomic "highlights" of the region he is subjecting to his scalpel. Only essentials have been pre-

sented in this work; non-essentials and padding have been carefully omitted.

The style of the book is pleasant and free from the average cut and dried monotone of anatomic recital. For instance, on page 416 the author refers, in speaking of sphincters of the gut, to "lockgates connected by telephone." Terms such as achalasia, and similar other new names have been included in the work.

The illustrations are an anticlimax. While there are no objections to diagrammatic representations of anatomic parts, it is carrying it too far, we believe, to modernize anatomy in the sense of Cézanne, Picasso or Chirico. Figure 208, on page 203, depicting the osteology of the foot, for instance, reminds one of a modernistic mosaic, instead of an anatomic representation.

The index is well arranged. As a whole, the book can be warmly recommended to every medical student and practitioner.

M. T.

### Hutchison: Index of Treatment

AN INDEX OF TREATMENT. By Various Writers. Edited by Robert Hutchison, M.D., F.R.C.P., Physician to the London Hospital; and Physician to the Hospital for Sick Children, Great Ormond Street. Tenth Edition, Revised. New York: William Wood and Company. 1931. Price \$12.00.

The ninth edition of this excellent work was reviewed in this journal in February, 1926 (page 139), and all that was then said of it still holds true. The fact that another (tenth) edition is now called for suggests that it has demonstrated its usefulness.

The present edition has been thoroughly revised and a number of new subjects have been added: Anesthesia and Diabetes in Children; Erythremia; Glandular Fever; Pink Disease; Serum Sickness; and Treatment by Protein Shock and Blood-Letting.

Every clinician needs a book like this in his library, to be kept within reach for daily reference. It fills an important place between the brief and often unsatisfactory medical formulary and the exhaustive treatises on therapeutics. The material is so arranged that the desired information can be readily found.

### Brooke: Orthopedic Surgery

A SHORTER ORTHOPAEDIC SURGERY. By R. Brooke, M.S., F.R.C.S., Hon. Orthopaedic Surgeon, Royal West Sussex Hospital. New York: William Wood and Company. 1932. Price \$3.00.

This work is a volume of only 150 pages and contains the essentials pertaining to orthopedic surgery. For the medical student and for the general practitioner it is valuable. It is divided into ten chapters. The first describes the hip joint and its diseases; the second, the knee joint; the third, the ankle joint; the fourth the shoulder joint; the fifth, the elbow and the sixth, the hand and the wrist. Chapter 7 deals with the neck; Chapter 8, with the spine and pelvis; Chapter 9 discusses arthroplasty and

amputations, and Chapter 10 is devoted to plaster of paris technic.

Only the most important features of a given condition are described. The work is strictly up to date. The excellent illustrations are mainly photographs and diagrams. The index is painstakingly and thoroughly arranged. The paper and binding show fine bookwork.

The text is very systematically arranged. For example: Dealing with the hip joint, a brief resumé of the outstanding points of anatomy are discussed. This is followed by the pathology, the symptoms and treatment of the various diseases encountered in this location. The discussion of inflammatory conditions, such as chronic infective arthritis, is limited to two pages, but it is full of potent material, carefully selected and systematically compiled. In sequence, all orthopedic conditions are treated in the same admirable manner. While the book is small in size it is big in a worthwhile content.

M. T.

### Bookfellow Poetry

A BOOKFELLOW ANTHOLOGY. By ninety-one authors. Chicago: *The Bookfellow*. 1932. Price, \$2.00.

This year's Anthology, which contains 161 poems, is decidedly the best of this interesting series which has, so far, been published — it contains far more real poetry and far fewer "duds."

Here is a fine bit by Margarete Strack Fischer:

#### IN EVERY HUMAN HEART

In every human heart there is a cup,  
From which is spilt a drop of magic brew  
That changes earth and heaven; yet God  
foreknew.

This volume is a good example of the trends of modern poetry, and the book-work is excellent. It would make a pleasing gift or be a source of pleasure to anyone who enjoys good verse.

### Lichtwitz, Liesegang and Spiro: Colloids in Medicine

MEDIZINISCHE KOLLOIDLEHRE. Herausgegeben Von Prof. Dr. L. Lichtwitz, Direktor der I. Inn. Abt. des Rudolf-Virchow-Krankenhauses Berlin; Dr. Dr. Raph. Ed. Liesegang, Frankfurt a.M. and Prof. Dr. Karl Spiro, Direktor des Physiologisch-Chemischen Instituts der Universität Basel. Mit Vielen Abbildungen. Dresden und Leipzig: Verlag Von Theodor Steinkopff 1932. Price geh RM 5.—.

The close relation of colloids to biology, pathology, physiology and general medicine has suggested the preparation of a general textbook on this subject. The text is the work of a number of distinguished German collaborators, and will appear in ten parts, the whole to make up a volume of about 1,000 pages. Part 1 deals with colloids in general, in relation to biology and pathology. This authoritative work promises to be of great interest to physiologic chemists and to medical laboratory technicians who read German.

### Berlin University Clinics

DIE THERAPIE AN DEN BERLINER UNIVERSITÄTS-KLINIKEN. Von Dr. Wilhelm Croner und Dr. Heinz Kalk. Berlin and Vienna: Urban & Schwarzenberg. 1932. Price \$3.75.

For the past thirty years Dr. Croner of Berlin has edited a book such as this, in which the methods of treatment used for the class of diseases which is assigned to each of the fifteen university clinics and dispensaries are given. The scheme is to arrange the diseases treated in each clinic alphabetically and to discuss each from the standpoint of the teachings of the leading professor. An excellent register of diseases and an index of therapeutic measures and medicines facilitate quick orientation. Special sections are devoted to dietetics, vaccination and serotherapy, etc. Of special interest is the fact that the Berlin authorities have accepted the classification of obesity advocated by Dr. Maximilian Kern, of Chicago, and the table of calories propounded by Boothby. Those who can read ordinary medical German and who are interested in becoming familiar with the management of all known diseases in the great German medical center, will find in this latest edition of Croner's book all the information they seek.

G. M. B.

### Brugsch: General Medicine

ERGEBNISSE DER GESAMTEN MEDIZIN; Unter Mitwirkung Hervorragender Fachgelehrter. Herausgegeben von Prof. Dr. Th. Brugsch, o. ö. Professor und Direktor der Medizinischen Klinik der Universität Halle a. d. S. Siebzehnter Band—Hälfte 1. und 2. Berlin & Wien: Urban & Schwarzenberg. 1932. Price RM. 27.—; geb. RM 30.—.

The first half of the seventeenth volume of this compendium of medical practice contains 6 contributions by leading German clinicians. Eimer's article on nutrition and diet and Hoffmann's on yellow fever are particularly good.

The second half of the volume contains 8 contributions on such diversified subjects as brain tumors, syphilis of the aorta, grippé, electromyography, etc.

The work seems to be conscientiously and well done and offers a very complete synopsis of medical practice for those who read German.

### Wolff: Diseases of Digestive Tract

DIE KRANKHEITEN DER VERDAUUNGSORGANE; Diagnostik und Therapie. Von Dr. Walter Wolff, Chefarzt der inneren Abteilung am Königin Elisabeth-Hospital zu Berlin-Oberschöneeweide. Mit 30 Abbildungen und 3 farbigen Tafeln. Berlin & Wien: Urban & Schwarzenberg. 1932. Price geh. RM 10.50— geb. RM 12.—.

A concise synopsis of diagnosis and treatment of diseases of the digestive organs. The various functional tests applicable are well described. This takes the place of a third edition of the author's previous book on diseases of the stomach and intestines.

## MEDICAL · NEWS



### Dr. Sherwood-Dunn Passes

Word has just reached us of the passing in March, 1932, of Dr. B. Sherwood-Dunn, of Nice, France, after a long and painful illness.

Dr. Sherwood-Dunn was a graduate of New York University and of the University of Paris (France). After practicing in France for two years he returned to the

United States, in 1900, and became associate professor of gynecology at Tufts Medical College, Boston, and joint owner and editor of *Annals of Gynecology and Pediatrics*; but his chief interest was in finance, and he was a director of several banks and trust companies.

He returned to France in 1912, and served in the French army during the War,

receiving the rank of colonel, as well as the Legion of Honor and other decorations.

The Doctor was, for many years, a frequent and helpful contributor to *CLINICAL MEDICINE AND SURGERY* and will be missed by our readers.



© Keystone-Underwood.

### Naval Surgeon Decorated

The decoration of the Purple Heart has recently been revived by the Army and Navy and is being conferred for wounds received in action against the enemy. The Silver Star is also being given for heroism in battle.

Captain Joel T. Boone, Medical Corps, U. S. Navy, President Hoover's personal physician, who already has a number of decorations, was recently granted both of these new ones, and is shown above receiving them from Secretary of War Patrick J. Hurley.

### Low Death Rate

In spite (or, perhaps, because!) of the general hard times, the death rate, among the industrial policy-holders of the Metropolitan Life Insurance Co., was lower, during the first eight months of 1932, than it has ever been during a similar period. This proves (or, maybe, only suggests) that—what?

We shall be glad to have our readers send in their own answers to that question.

### Medico-Military Training

Two weeks of postgraduate medical work, combined with military training, will be available, to medical officers of the Army and Navy Reserve Corps and the National Guard, at Washington University, St. Louis, Feb. 12 to 25, 1933.

Those physicians who take advantage of this opportunity will have no expenses to pay except for transportation and living, as no charge will be made for the graduate course. They will receive no pay from the Government, but will receive time credit toward promotion, the same as for two weeks of active duty.

For full particulars, write to Col. George A. Skinner, M.C., U. S. A., Corps Area Surgeon, Ft. Omaha, Nebr.

### The Critic and Guide Completes Thirty Years

With the December, 1932, issue, *The Critic and Guide* completed thirty years of uninterrupted existence under the sole editorship of Dr. William J. Robinson. The same man who wrote the first editorial for it thirty years ago is still at the helm, his work showing no diminution in vigor or interest.

### Postgraduate Medical Assemblies

The Interstate Postgraduate Medical Association of North America is announcing its American (spring) and European (summer) clinical tours. The American trip will run from Apr. 17 to May 6, 1933, and will include Chicago, Cleveland, Boston, New Haven (Yale University), New York, Philadelphia, Baltimore and Washington. The total cost will not exceed \$400.

The European tour will run from May 14 to July 10, 1933, and will include London, Edinburgh, Stockholm, Leningrad, Moscow, Berlin, Vienna, Paris and other cities. The minimum fee for the tour will be \$1,060.

Full information regarding both of these tours may be obtained from Dr. W. B. Peck, Freeport, Ill.

## Send · For · This · Literature

To assist doctors in obtaining current literature published by manufacturers of equipment, pharmaceuticals, physicians' supplies, foods, etc., CLINICAL MEDICINE AND SURGERY, North Chicago, Ill., will gladly forward requests for such catalogues, booklets, reprints, etc., as are listed from month to month in this department. Some of the material now available in printed form is shown below, each piece being given a key number. For convenience in ordering, our readers may use these numbers and simply send requests to this magazine. Our aim is

to recommend only current literature which meets the standards of this paper as to reliability and adaptability for physician's use.

Both the literature listed below and the service are free. In addition to this, we will gladly furnish such other information as you may desire regarding additional equipment, or medicinal supplies. Make use of this department.

When requesting literature, please specify whether you are a doctor of medicine, dentist, medical student, or registered pharmacist, or a nurse.

F-47 Campho-Phenique in Major and Minor Surgery. Campho-Phenique Company.

F-392 Arthritis. Its Classification and Treatment. Battle & Co.

F-504 Bedtime Nourishment. Mellin's Food Co.

F-571 Detoxification in the Treatment of Intestinal Infections. The Wm. S. Merrell Company.

F-596 The Pneumonic Lung. Its Physical Signs and Pathology. The Denver Chemical Mfg. Co.

F-610 Bischoff Pharmaceutical Specialties. Ernst Bischoff Co., Inc.

F-611 Vera-Perles of Sandalwood Compound. The Paul Plessner Company.

F-612 Taurocol. The Paul Plessner Co.

F-613 Specific Urethritis — Gonosan "Riedel." Riedel & Co., Inc.

F-635 Niazo, Schering, a Modern Genito-Urinary Antiseptic for Oral Use. Schering Corporation.

F-636 Science's latest contribution to female sex hormone therapy—Progynon. Schering Corporation.

F-642 Ergoapiol (Smith) and Glykeron. Martin H. Smith Co.

F-647 The Modern Status of Diabetes. Battle & Co. Chemists' Corporation.

F-699 The Illinois Post-Graduate Medical School Bulletin. The Illinois Post-Graduate Medical School, Inc.

F-672 Inflammation and Congestion. Numotizine, Inc.

F-679 The Gastric Temperament — Cal-Bis-Ma. William R. Warner & Co., Inc.



- F-713 From "Poultess" to "Cataplasm—Plus." Numotizine, Inc.
- F-718 For more than 25 years the Dental and Medical Profession have recommended Revelation Tooth Powder. August E. Drucker Company.
- F-719 Tetanus-Perfringens (Tetanus Gas-Gangrene) Antitoxin. The National Drug Company.
- F-720 National Hay Fever Antigens. The National Drug Company.
- F-724 An Unusually Palatable Form of Alkaline Medication. The BiSoDol Company.
- F-725 The Hormone — February, 1933. The Harrower Laboratory, Inc.
- F-726 The Acid-Base Balance of the Body; Its Relation to Health and Disease. The BiSoDol Company.
- F-729 Endo Products Price List. Intravenous Products Company of America, Inc.
- F-734 Endocrine Problems in Pediatric Practice. The Harrower Laboratory, Inc.
- F-735 Some Notes on the Four Forms of High Blood Pressure. The Harrower Laboratory, Inc.
- F-736 The Male Climacteric and Related Conditions. The Harrower Laboratory, Inc.
- F-737 Descriptive Booklet. Od Peacock Sultan Co.
- F-738 Bismuth Suspension for Intramuscular Use Only in All Stages of Syphilis. Endo Products, Inc.
- F-739 Yeast Therapy. Based on the Published Findings of Distinguished Investigators and Physicians. Standard Brands Incorporated.
- F-740 Circulatory Collapse. Its prevention and treatment in infectious and adynamic diseases. E. Fougere & Co., Inc.
- F-741 Adsorption for the treatment of Putrefactive Toxaemias. E. Fougere & Co., Inc.
- F-742 Dilaudid a morphine derivative. An Advance in Opiate Medication. Bilhuber-Knoll Corp.
- F-743 Endocrinological Feature of Impotentia Sexualis. Remo gland Chemical Co.
- F-744 Effective Inhalation Therapy. Vapo-Cresolene Co.
- F-745 "Storm" Binder and Abdominal Supporter. Katherine L. Storm, M.D.
- F-746 Dr. Weirick's Sanitarium. Dr. G. A. Weirick.
- F-747 Rheumatism and the Weather. William R. Warner & Co., Inc.
- F-750 Headache — Peralga. Schering & Glatz, Inc.
- F-751 Nerves in Revolt—Agarol. William R. Warner & Co., Inc.
- F-752 Fourth Edition of Diagnosis of Genito-Urinary Diseases and Syphilis. Od Peacock Sultan Co.